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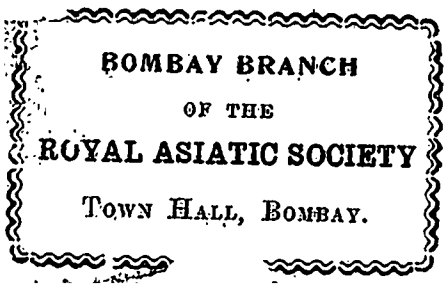

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NATIVE OF WESTERN AUSTRALIA

Published by T & W Boone, London

JOURNALS

OF

TWO EXPEDITIONS OF DISCOVERY

IN

83385

NORTH-WEST AND WESTERN AUSTRALIA,

DURING THE YEARS 1837, 38, AND 39,

Under the Authority of Her Majesty's Government.

DESCRIBING

MANY NEWLY DISCOVERED, IMPORTANT, AND FERTILE DISTRICTS,

WITH

OBSERVATIONS ON THE MORAL AND PHYSICAL CONDITION OF THE ABORIGINAL INHABITANTS, &c. &c.

BY GEORGE GREY, ESQ.

GOVERNOR OF SOUTH AUSTRALIA;

Late Captain of the Eighty-third Regiment.

W-a-15

IN TWO VOLUMES.

VOL. II.

LONDON:

T. AND W. BOONE, 29, NEW BOND STREET.

1841.

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JOURNALS

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FROM GANTHEAUME BAY TO THE HUTT RIVER.

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A FEW moments were sufficient to enable us all to recollect ourselves : two men endeavoured to keep the boat's stern on to the sea, whilst the rest of us lightened her, by carrying every thing we could on shore, after which we hauled her up. The custom had always been for the other boat to lie off until I made the signal for them to run in, and it accordingly was now waiting outside the breakers. Her crew had not seen our misfortunes, owing to the height of the surf, which, when we were under it, shut us out from their view, and now perceiving that we were on shore, and the boat hauled up, they concluded all

was right; and, notwithstanding I made every possible sign to them not to beach, running as far as I could venture into the sea, and shouting out to them,—my voice was drowned by the roar of the surge, and I saw them bounding on to, what I thought, certain destruction. We, of course, were all turned to render assistance. They, fortunately, kept rather to the south of the spot on which we had beached, and where it was much less rocky, so that the danger they incurred in reaching the shore was slight in comparison to ours; yet some of the planks of this boat were split throughout their entire length.

Whilst all hands were employed in endeavouring to repair damages, I ascended a hill to reconnoitre our present position, and found we were in a country of a pleasing and romantic appearance, and although the land was not good, the nature of the soil made me aware that we were most probably in the vicinity of a large tract of better quality; indeed, this was the only part of South-west Australia in which I had met with the ancient red sandstone of the North-west coast; immediately behind the sand-hills on which I stood was a thick Casuarina scrub, which sloped down into a deep valley, and beyond this rose lofty and fantastic hills. After I had for some time looked round on this scene, I returned to the party and received the report of the carpenters, who, having examined the boats, stated their inability to render either of them fit for sea. To this I had already made up my mind; and even if the boats had been uninjured, I doubt whether we could ever

have got them off again through the tremendous surf which was breaking on this part of the shore; whilst to have moved them to any distance would, in our present weak and enfeebled state, have been utterly impossible.

No resource was now left to us but to endeavour to reach Perth by walking; yet when I looked at the sickly faces of some of the party, and saw their wasted forms, I much doubted if they retained strength to execute such a task; but they themselves were in high spirits, and talked of the undertaking as a mere trifle. I gave orders for the necessary preparations to be made, and then started with two or three hands to search for water. On reaching the valley I have before-mentioned we found a small stream, and following this to the northward for about a mile, came out upon one of the most romantic and picturesque-looking estuaries I had yet seen: its shores abounded with springs, and were bordered by native paths, whilst the drooping foliage of several large sorts of Casuarina, the number of wild swans on its placid bosom, and the natives fishing in the distance, unconscious of our presence, imparted to the whole scene a quiet and a charm which was deeply felt by those who had now for so many days been either tossed about by the winds and waves, or had long been wandering over barren and inhospitable shores. We did not, indeed, find much good land about this estuary, but there were rich flats upon each side of it, whilst the nature of the rocks, and the lofty and peculiar character of the distant hills, gave promise of the

most fertile region I had yet seen in extra-tropical Australia.

We followed the shores of the estuary to the northward and eastward until we saw a point, where it appeared to separate into two branches. The natives decamped as soon as they observed us coming, and Kaiber, who watched them with the most intense interest, indulged in various speculations as to the number they would bring back when they returned. We joined the party and traced the shores of the estuary to its mouth, which turned out to be the opening we saw in the morning: this mouth is completely sheltered by a line of breakers and reefs, which, although they present a most formidable appearance from the sea, can be doubled by keeping pretty close along the shore in approaching the mouth of the river. Owing to this reef there are no breakers on the bar, but its mouth is very narrow, and so shoal that I doubt if a boat could be got in at any other time than high water: some of the sailors with me, however, thought otherwise; but there is, at all events, convenient landing at this point under the shelter of the reef.

April 2.—The men not having quite completed their preparations for starting, I moved off at dawn to resume the survey of Gantheaume Bay and its vicinity. The estuary appeared this morning even more lovely than yesterday, and as the heavy morning mists arose, unfolding its beauties to our view, all those feelings came thrilling through my mind which explorers alone can know; flowering shrubs

and trees, drooping foliage, a wide and placid expanse of water met the view; trickling springs and fertile flats were passed over by us; there was much barren land visible in the distance, though many a sign and token might lead the practical explorer to hope, that he was about to enter upon a tract of an extent and fertility yet unknown in s.w. Australia. A total change had taken place in the geological formation of the land: a rock, as yet unobserved in the s.w. portion of the continent, occupied the principal place here; and with this rock was associated limestone; the springs had a strong sulphureous smell, and the lofty broken character of the distant mountains had an almost grand appearance, to those who had so long wandered through low and level countries.

Each step I took rendered my spirits more buoyant and elastic, and each hill, the position of which I fixed, gave me, from its appearance, renewed hopes. Under such agreeable circumstances the morning wore rapidly away, and having rendered my survey as complete as I could, we returned to the boats.

We were now all ready to commence our toilsome journey; the provisions had been shared out; twenty pounds of flour and one pound of salt provisions per man, being all that was left. What I have here designated by the name of flour was quite unworthy of being so called, it was of a dark yellowish brown colour, and had such a sour fermented taste, that nothing but absolute necessity could induce any one to eat it. The party, however, were in high spirits; they talked of a walk of three

hundred miles in a direct line through the country (without taking hills, valleys, and necessary deviations into account), as a trifle, and in imagination were already feasting at home, and taking their ease after the toils they had undergone.

I gave them all warning of the many difficulties they had yet to encounter, and did this, not with the intention of damping their ardour, but in the hope of inducing them to abandon some portion of the loads they intended to carry. I entrusted a small pocket chronometer to Mr. Walker, and another to Corporals Coles and Auger; and to Ruston I gave charge of a pocket-sextant, which belonged to the Surveyor-General at Perth. Coles and Auger also undertook to carry a large sextant, turn about; all my own papers, such charts as I thought necessary, and some smaller instruments I bore myself; but Kaiber, in order to relieve me, took charge of my gun, and some other articles. Mr. Smith carried his sketch book and box of colours. I ought here to state, that in all the difficulties which beset those individuals to whom I entrusted anything, they never, except on one occasion, and by my orders, abandoned it: indeed, I do not believe that there is a stronger instance of fidelity and perseverance than was evinced by some of the party, in retaining, under every difficulty, possession of that which they had promised to preserve for me.

Our loads having been hoisted on our shoulders, away we moved. I had before chosen my line of route, and the plan I had resolved to adopt was to

walk on slowly but continuously for an hour, and then to halt for ten minutes; during which interval of time the men could rest, and relieve themselves from the weight of their burdens, whilst I could enter what notes and bearings I had taken during the preceding hour.

We were embarrassed for the first portion of our journey, this afternoon, by a thick scrub, through which we could only make our way with great difficulty, but on coming to a water-course, running into the southern part of Gantheaume Bay from the south-east I turned up its bed, and we were then able to move along with tolerable facility. This water-course ran at the bottom of a red sandstone ravine, resembling the old red sandstone of England; and the remainder of the evening was spent in clambering about the rocks, and endeavouring to avoid such natural obstacles as impeded our route. Our progress was slow, and just before night-fall, I turned up a branch ravine trending to the southward, when we soon found ourselves at the foot of a lofty cascade, down which a little water was slowly dropping; and on climbing to its summit, it appeared to be so well adapted for a halting-place for the night, that I determined to remain here. The men made themselves comfortable near the water-holes, and Mr. Smith and myself crept into a little cave, which occcasionally served as a resting-place for the natives, the remains of whose fires were scattered about. A wild woodland and rocky scenery was around us; and when the

moon rose, and shed her pale light over all, I sat with Mr. Smith on the edge of the waterfall, gazing alternately into the dim woody abyss below, and at the red fires and picturesque groups of men, than which fancy could scarcely image a wilder scene.

April 3.—Before the day had fully dawned, we were under weigh. Our course for the first mile or two was embarrassed by ravines and scrub, similar to that we had yesterday met with; our progress was therefore very slow, but we at length emerged on elevated sandy downs, thickly clothed with banksia trees, and across these we came upon a well-beaten native path, running to the S. by E. which was exactly our line of route. We had not followed this path for more than four miles, when we found a most romantically-situated native well, surrounded by shrubs and graceful wattle trees, and of a depth and size such as we had never before observed. Here, then, we seated ourselves, and, upon such scanty fare as we had, made a sparing breakfast. This, however, but very insufficiently supplied our wants; and as we sat at this little well, thus surrounded with such fairy scenery, a variety of philosophic reflections crossed our minds, and found vent in words. Nothing could be more delightfully romantic than our present position. Both as regarded danger, scenery, savages, and unknown lands, we were in precisely the situation in which Mr. Cooper and other novelists delight to depict their travellers, with

this one woeful difference,— our wallets were empty. It was in vain I fumbled about in mine; I could neither find the remains of a venison pasty, a fat buffalo's hump, or any other delicacy: indeed I had not the means of keeping life and soul together for many days longer. Deeply did we regret that we were not favoured, for a few days, with the company of Mr. Cooper, that he might, in our present difficulties, fully initiate us into the mysterious,— nay, almost miraculous means by which his travellers, even in the most dreary wilds, always contrived to draw forth from their stock of provender such dainties that the bare recollection of them made our mouths water; but the necessities of the moment would not permit me, for more than a few minutes, to indulge in these speculations, and we turned therefore from seductive travels of the imagination to the more stringent ones of reality.

I now entreated the men to disencumber themselves of a portion of the loads which they were attempting to carry. Urged by a miscalculating desire of gain, when the boats were abandoned they had laid hands upon canvass and what else they thought would sell at Perth, and some of them appeared to be resolved rather to risk their lives than the booty they were bending under. The more tractable threw away the articles I told them to get rid of; but neither entreaties nor menaces prevailed with the others.

For the next three miles we still followed the native path, which continued to run S. by E. The

whole of this distance was over open sandy downs, abounding in kangaroos; but we now suddenly emerged into a rich limestone country, of gently sloping hills and valleys, affording, even at this season of the year, fair feed for sheep or cattle, and we found springs of water at every few hundred yards, generally situated at the edge of a large clump of trees.

After having for some time rested here, I quitted the native path, which trended too much to the eastward, and leaving also the direction of the limestone country which ran inland, we continued a S. by E. course, over a gravelly table-land, in places covered with beds of clay on which rested ponds of water. The country here was perfectly open, with clumps of trees to the eastward. Emus and kangaroos were wandering about the plains. Two miles more brought us to an almost impenetrable belt of scrub, which lay east and west, directly athwart our path, so that we were obliged to face it; and in two hours and a half I had forced my way throw it. The others followed, slowly emerging from the bush after me, and as we were all totally exhausted, as well as dreadfully torn and bruised, we halted at its edge for the night, and lighting our fires lay down to court that repose we had so fairly earned. We had, however, only walked fifteen and a half miles to-day.

April 4.—I again this morning used every effort to induce some more of the men to abandon a portion of their loads. I represented to them their

weak state, the small supply of provisions they had with them, and the difficulty they already found in keeping up with the party; but all these arguments and every other I could make use of were unavailing; the tenacity with which they clung to a worthless property, even at the risk of their lives, is almost incredible, and it is to be borne in mind that this property was not their own, but what they had taken from the wreck of the boats. Did I even induce one to throw anything away, another avaricious fellow would pick it up; and their thoughts and conversation, instead of running upon making the best of their way home and saving their lives, consisted in conjectures as to what they would realize from their ill-gotten and embarrassing booty.

The course I pursued was one of 180°, and we soon fell in with the native path which we had quitted yesterday; but it now became wide, well beaten, and differing altogether, by its permanent character, from any I had seen in the southern portion of this continent. For the first five miles we traversed scrubby stony hills, thickly wooded with banksia trees; but the limestone here again cropped out, and we entered a very fertile valley, running north and south, and terminating in a larger one, which drained the country from east to west. This valley is remarkable as containing one Xanthorrhea (grass-tree); being the farthest point to the north at which I have found this tree. In it also was a gigantic ant's nest, being the most southerly one I had yet seen. All these circumstances convinced me that we were

about to enter a very interesting region. And as we wound along the native path my wonder augmented; the path increased in breadth and in its beaten appearance, whilst along the side of it we found frequent wells, some of which were ten and twelve feet deep, and were altogether executed in a superior manner. We now crossed the dry bed of a stream, and from that emerged upon a tract of light fertile soil, quite overrun with *warran* plants,* the root of which is a favourite article of food with the natives. This was the first time we had yet seen this plant on our journey, and now for three and a half consecutive miles we traversed a fertile piece of land, literally perforated with the holes the natives had made to dig this root; indeed we could with difficulty walk across it on that account, whilst this tract extended east and west as far as we could see.

It was now evident that we had entered the most thickly-populated district of Australia that I had yet observed, and moreover one which must have been inhabited for a long series of years, for more had here been done to secure a provision from the ground by hard manual labour than I could have believed it in the power of uncivilised man to accomplish. After crossing a low limestone-range, we came down upon another equally fertile *warran* ground, bounded eastward by a high range of rocky

* The Warran is a species of Dioscorea, a sort of yam like the sweet potatoe. It is known by the same name both on the east and west side of the continent.

limestone hills, luxuriantly grassed, and westward by a low range of similar formation. The native path, about two miles further on, crossed this latter range, and we found ourselves in a grassy valley, about four miles wide, bounded seawards by sandy downs. Along its centre lay a chain of reedy fresh water swamps, and native paths ran in from all quarters, to one main line of communication leading to the southward.

In these swamps we first found the *yun-jid*, or flag (a species of *typha*), and the sow-thistle of the southern districts; one we came to was a thick tea-tree swamp, extremely picturesque, and producing abundance of these plants, some of which were collected by the men to eat in the evening. To my surprise Mr. Walker here came up to me, and asked if I did not think it would be better to halt for a day or two at places of this kind, to allow the men to refresh themselves. The idea of men halting, and wasting their strength and energies in searching for native food, whilst they had so fearful a journey before them, and no supplies, appeared to me to be preposterous in the extreme: to obtain a sufficiency of food, even for a native, requires in Australia a great degree of skill and knowledge of the productions of the country; but for a European, utterly unaccustomed to this species of labour, and totally unacquainted with the productions of the land, to obtain enough to support life for any period, whilst, at the same time, he has to search for water, is quite impossible. Even Kaiber, from his ignorance of

the roots, declared that he should starve in this country. I saw, therefore, that did I adopt the proposed plan of travelling only a few miles a day, and occasionally halting for a day or two to refresh ourselves upon some thistles and periwinkles, I should infallibly sacrifice the lives of the whole party; and under this impression I declined to accede to the suggestion. Amongst indolent and worn-out men, however, it subsequently became an extremely popular notion, and, as future events clearly shewed, a fatally erroneous one. I from the first opposed it both by my words and example; and in this instance, as soon as I conceived that the men were sufficiently rested, I moved on.

After travelling another mile we found ourselves at the head of a large and picturesque estuary, which lay north and south; the native path ran along its shores, which were of great richness and beauty, and the estuary itself lay to our west, and was about two miles across; on the east a series of rich undercliff limestone hills, gradually rose into lofty, and precipitate ranges, between which and the estuary, was the fertile valley, along which we wound our weary way; while groups of graceful acacias with their airy and delicate foliage, gave a great charm to this beautiful spot.—We moved slowly along, and ere we had made two miles more the shades of night begun to fall, and I halted the party.

The abundance of grass which grew around, enabled us to enjoy the almost unknown luxury of a

soft bed, yet as I lay down, my thoughts were far from pleasant, when I found that we had only walked twelve miles to-day, and this distance had been accomplished by several of the party, with the greatest difficulty. Three of them were the men who carried those heavy loads, which I could not yet induce them to abandon; now I could not but reflect that, if their difficulty was so great in walking in a country abounding with water, that it would be almost impossible for them to get along in one where it was scarce; moreover the mere physical exertion of getting unwilling men, to move by persuasions and entreaties, was harassing in the extreme, and indeed had so agitated me that the night had nearly worn away ere I closed my eyes.—The rich flats we were on to-day have apparently at no distant period formed part of the head of the estuary.

April 5.—Such a heavy dew had fallen during the night, that when I got up in the morning, I found my clothes completely saturated, and every thing looked so verdant and flourishing compared to the parched up country which existed to the north of us, and that which I knew lay to the south, that I tried to find a satisfactory reason, to explain so strange a circumstance—but without success. It seemed certain, however, that we stood in the richest province of South-west Australia, and one which so differs from the other portions of it in its geological characters, in the elevations of its mountains which lie close to the sea coast,

in the fertility of its soil, and the density of its native population, that we appeared to be moving upon another continent. As yet however the only means I had of judging of the large number of natives inhabiting this district, had been from their paths and warran grounds, but it was most probable that we should ere long fall in with some of them.

We started at dawn pursuing a S. S. E. direction, and at the end of one mile rounded a bluff point; the limestone hills to the eastward gradually decreased in elevation, and we ascended one of them to gain a view of the surrounding country. I found that the summit of this range consisted of a terrace about half a mile wide, richly grassed and ornamented with clumps of mimosas; to the eastward rose a precisely similar limestone terrace, whilst to the westward lay the estuary with its verdant and extensive flats.

As we wound our way along this terrace a large party of natives suddenly appeared on the high ground to the eastward of us, they evinced no fear whatever, but advanced to within about two hundred yards, when I went forward with Kaiber, to induce them to hold an interview with us; this, however, I could not bring about, for whenever I advanced they retreated, and when I retired they advanced; they also now began to shout out to their distant fellows, and these again *cooed* to others still farther off, until the calls were lost in the distance, whilst fresh reinforcements of natives came trooping in from all directions.

Our situation was growing critical, for had any of the party been wounded, we could not attempt to save his life by remaining with him, without the almost certain danger of losing our own, whilst on the other hand to have abandoned him, under such circumstances, would have been impossible. I was most anxious to get rid of these natives in peace, as they now could not be induced to come to us, being most probably fearful of our numbers. I hoped therefore they would let us go quietly on our way, and moved the party forward; but they now followed us with loud shouts, whilst those in the distance came running up. I again halted, but they would hold no communication, and when in despair, I again moved the party on, we saw a number hastening to occupy a thick scrub through which we had to pass. The men now became so dissatisfied and alarmed, that I found I should be unable much longer to restrain them from firing, if I did not disperse the natives.

I, therefore, halted the party, and cocking my gun, moved rapidly towards them, motioning them away; they retired as I advanced, but directly I turned they again followed us; I now ran towards them, with my gun pointed, when they made off before me once more, and in order to complete their dispersion, I had intended to fire over their heads; but to my great mortification and their intense delight, my gun snapped, and as they found the weapon I had with me, and with which I had menaced them in so authoritative a manner, appeared to produce no

effect, they took courage, and, turning about, made faces at me, and an insulting noise, which was meant to imitate the snapping of the gun. Their inimical intentions now became more manifest; I however, ran at them again, and fired my second barrel over their heads, which caused a rapid retreat; but they halted on a rising ground about three hundred yards from us, and finding on the muster of their forces, that they had sustained no damage, they made preparations, as if resolved to commence hostilities in earnest.

As these natives had now unfortunately learnt to despise our weapons, I was compelled to act promptly, or blood would undoubtedly have been shed. I therefore took my rifle from Coles, and directing it at a heap of closely matted dead bushes, which were distant two or three yards to the right of their main body, I drove a ball right through it: the dry rotten boughs crackled, and flew in all directions, whilst our enemy, utterly confounded at this distant, novel, and unfair mode of warfare, fled from the field in confusion, the majority of our party rejoicing at the bloodless victory: we then wended our way along the native path, which led us down to the flats bordering the estuary, and finding there an underground stream of water bubbling along through a limestone cavity, and having several openings upwards, we halted to refresh ourselves.

I had hoped that, finding hostile natives in our vicinity, would have made the stragglers keep up better with the party, but they would neither

hasten on nor throw away their loads, so that my patience was sorely tried; a man of the name of Stiles was the worst; nothing could induce him to move along, and even the threat of leaving him behind produced no effect; I however kept pushing steadily onwards, for I never thought of the length of the journey we had to perform, without trembling for the result. We were now walking on a course of 180°, and followed this line for two miles and a half through a similar country. We still found many native paths running along the estuary, and saw the natives fishing, but they carefully avoided us making off for the high lands as fast as they could. The estuary became narrower here, and shortly after seeing these natives, we came upon a river running into it from the eastward; its mouth was about forty yards wide, the stream strong, but the water brackish, and it flowed through a very deep ravine, having steep limestone hills on each side: many wild fowls were on the river, but we could not get a shot at them. Being unable to ford the river here, we followed it in a S. E. direction for two miles, and in this distance passed two native villages, or, as the men termed them, towns,—the huts of which they were composed differed from those in the southern districts, in being much larger, more strongly built, and very nicely plastered over the outside with clay, and clods of turf, so that although now uninhabited, they were evidently intended for fixed places of residence. This again shewed a marked difference between the

habits of the natives of this part of Australia, and the south-western portions of the continent; for these superior huts, well marked roads, deeply sunk wells, and extensive warran grounds, all spoke of a large and comparatively speaking resident population, and the cause of this undoubtedly must have been, the great facilities for procuring food in so rich a soil.

We now came to two very remarkable hills, bearing N. E. of us, and distant about three miles, which I have named Mount Victoria and Mount Albert, they lay about one mile apart, and were of this form, which will give a good idea of the flat topped hills hereabouts.

The river still ran in a deep wooded valley, bordered by rich flats, high hills lying both to the right and left of our line of route.—Two miles and a half more on a course of 135°, brought us out on some gravelly barren plains, and just before coming to these, and in passing through a scrub, we raised a flight of white cockatoos, of a species new to me.—One of the men got an ineffectual shot at them. After traversing these plains for two miles in a S. E. direction, we came upon a valley, through which flowed a branch of the river we had this day discovered, running in a bed of fifty yards across, and having in its centre a rapid stream, falling in small cascades; it appeared at times subject to extensive inundations, and here

its course was through barren plains, covered with rocks, piled up in strange fantastic masses, and the bed was composed of that kind of red sandstone, which at Perth is called ironstone; this being the farthest point north, at which I have remarked it.

A number of Grass trees (Xanthorrhea) grew near the spot where we had halted; they appeared unhealthy and stunted, but indeed I suspect they are a new and undescribed variety. Being desirous of procuring any thing I could for the men to eat, I had the tops of some of these trees cut off, and boiled, they were however still so hard that to chew them was impossible, and it was evident that we had not yet reached a parallel of latitude, calculated to produce tender-topped grass trees.

I knew our latitude and position this night exactly, as I had seen Mount Naturaliste of the French in the course of the day.—There could be no doubt whatever, that we were in a very remarkable district, for we stood upon the point where the geological formations of the north-western and south-western portions of the continent were associated together, and the flora of which was so made up of those of both, that it was impossible to tell which predominated. There were many other interesting circumstances connected with the surrounding country, some of which have been already mentioned. I named the river and estuary now discovered, the Hutt, after William Hutt, Esq., M.P., brother of His Excellency, the Governor of Western Australia. Mr. Smith this

day complained of weakness, not sufficiently, however, in the least to alarm me—he had hitherto been nearly always in the rear of the party without lagging, but I thought two of the men in a much weaker state than he was.

CHAPTER II.

FROM THE HUTT RIVER TO WATER PEAK.

WILD TURKEYS SEEN—DIFFICULTY OF URGING THE PARTY FORWARD—THE BOWES RIVER—NATIVE HUTS—THE VICTORIA RANGE AND DISTRICT—THE BULLER RIVER—THE CHAPMAN RIVER—SEARCH FOR A MISSING MAN—SCENE WITH NATIVES—RETURN OF PARTY FROM SEARCH—THE MAN FOUND—THE GREENOUGH RIVER—CROSS THE HEADS OF TWO BAYS—MORE NATIVE HUTS—AUSTRALIND—THE IRWIN RIVER—SEARCH FOR WATER—WATER PEAK HILL—BENIGHTED IN RETURNING TO THE PARTY.

April 6.—We moved off this morning on a course of 180°. The first mile of our journey was over low scrubby ironstone hills. We then came down upon rich flats, through which the main branch of the Hutt ran; and followed the course of this branch for about two miles. It was not running, but there were many pools with water in its bed: the flats were rich and grassy, and on the hills to the westward (the Menai hills) we descried wild turkeys, being the farthest point north at which I had seen this bird.

As I saw that the ground in front of us was very steep and abrupt, so that the weak and weary would have found it a difficult task to master such

an ascent, I turned off on a course of 168°, ascending a sandy table-land, covered with scrub. When we had walked three miles in this direction, the table-hill of Captain King bore E. by S. distant five miles. We now proceeded parallel to the sea, which was distant one mile, through an indifferent country. This course continued for about five miles, and on the ranges to the eastward the country still appeared to be grassy and good. Although we had walked very slowly, many of the party were completely exhausted, and one or two of the discontented ones pretended to be dreadfully in want of water, notwithstanding they carried canteens, and had only walked eight miles since leaving the bank of a river; I was therefore obliged to halt, and could not get them to move for three hours. I am sorry to say that some who should have known much better endeavoured to instil into the minds of the men, that it was preferable only to walk a few miles a day, and not to waste their strength by long marches; utterly forgetting that most of the party had now only seven or eight pounds of fermented flour left, and that if they did not make play whilst they had strength, their eventually reaching Perth was quite hopeless. This, however, was a very popular doctrine for thoughtless and weary men, who were overloaded, and yet from a feeling of avarice would not abandon any portion of what they were carrying. The majority of the party not only adopted these views in theory, but doggedly carried them into practice; and from this

moment I abandoned all hope of getting the whole party into the settled districts in safety. Poor fellows! most of them paid dearly for the mistaken notions they now adopted. Mr. Smith, with his usual spirit, was for pushing on, although his strength was inadequate to the task. I laid under the shade of a bush lost in gloomy reveries and temporary unpopularity; Kaiber by my side lulled me with native songs, composed for the occasion, and in prospective I saw all the dread sufferings which were to befal the doomed men who sat around me, confident of their success under the new plan; but like all prophets I was without honour amongst my own acquaintance; and after considering the matter under every point of view, I thought it better for the moment to succumb to the general feeling, yet to lose no opportunity on every subsequent occasion of endeavouring to rouse the party into a degree of energy, suited to our desperate circumstances.

At the end of the three hours I again begged several of the party, who appeared to be in an exhausted state, to abandon a portion of their useless loads; but they were quite sure that by making short marches, not exhausting their strength, and now and then halting for a day or two to refresh, they could carry them into Perth, and therefore refused to part with them. Mr. Smith and myself found that stopping in this way, and getting cold, rendered our limbs so stiff and painful when we walked on again that we could scarcely move; and I suspect that such was the

case with the other men, for when we started again, I could hardly get them along. One man of the name of Stiles, who was a stout supporter of the new theory, made us stop for him nearly every five minutes.

After walking one mile, we fortunately came to a very deep valley, having such steep limestone cliffs on each side, that it assumed quite the character of a ravine: it was about a mile wide, and in it was a water-course, winding through deep flats. We, however, only found water in pools; the course of the stream was very tortuous, and its mouth was almost blocked up by sand-hills. The valley itself was both picturesque and fertile, and the appearance of the country to the east and north-east was highly promising.—The stream I called the Bowes.

This spot was a favourite halting-place of the natives; and from the number of huts, and other indications which we saw, the district must be very densely populated. The huts were of the same superior construction as those which we had seen near the Hutt, and the traces were very recent, but the natives themselves were either at a distance, or kept carefully out of our way. The valley that we were now in, as well as the other limestone valleys in this province, partook exactly of the character of those in the carboniferous limestone districts of England, inasmuch as they were deep gorges, or ravines, now traversed by water-courses, or streams, apparently much too insignificant to have grooved them out.

Our finding water here was fortunate, for I now shewed the men that had they walked one mile farther, instead of halting, in the manner they had done, they would have had abundance of it, and would have been, at this moment, at least, five miles nearer home. I also directed Mr. Walker to examine Stiles, and to state whether he was in good health or not. He did so, and reported him quite well. I, therefore, when we started again, gave Stiles warning that I should not halt every minute for him, but would leave him behind, at the same time ordering him to walk in front of the party, next after me.

I continued a course of 180° up a steep limestone range, behind which apparently ran a branch of the water-course we had just passed: a good country lay to the eastward of us. Stiles now delayed us so much that some of his comrades spoke to him very warmly on the subject, whilst others still held to the opinion that walking a few miles a day, and sometimes halting a day or two to refresh, was the true mode of proceeding. We only made two miles this evening; and I threw myself on the ground so worn and harassed that I could not sleep.

Sunday, April 7.—Before the sun had appeared above the horizon, I managed to get the party fairly started, and we followed a course of 180° over elevated sandy downs, which rested on a limestone formation. The first four miles of our journey was not very encouraging; we could only see as far to the eastward as the flat-topped range; and although

the slopes of these hills looked very fertile, I had no means of judging how far back this good country extended; we had, however, been creeping gradually up an ascent, and when we gained the summit of this I turned to look to the northward after the straggling party, who were slowly mounting the hill, some of them staggering along under loads so heavy, that I should have hated the tyranny of any man who could have compelled them to carry such a weight; but as it was I could only grieve to see men, from the hope of gain, rushing so inevitably on their fate. Having gazed till weary at this painful picture of the weakness of human nature, I turned to the north-eastward, and there burst upon my sight a most enchanting view. In the far east,—that is, some twenty or five-and-twenty miles away, stretched a lofty chain of mountains, flat-topped, and so regular in their outline, that they appeared rather the work of art than of nature. Between this range and the nearest one, lay a large rich valley vying with the most fertile I have ever seen in an extra-tropical country. In front of us lay another valley which drained a portion of the large one, and in both rose gently swelling hills and picturesque peaks, wooded in the most romantic manner. Whilst I stood and looked on this scene, my woes were forgotten. Such moments as these repay an explorer for much toil and trouble. The distant range I at once named the Victoria, in honour of Her Majesty; and being now certain that the district we were in was one of the most fertile in

Australia, I named it the "Province of Victoria." There is no other part of extra-tropical Australia which can boast of the same number of streams in an equal extent of coast frontage, or which has such elevated land so near the sea; and I have seen no other which has so large an extent of good country. It is, however, bounded both to the north and south by, comparatively speaking, unproductive districts; but what the character of the country to the north-east and south-east may be, still remains to be ascertained.

Another mile on a course of 180° brought us to the valley in our front; it was of the same rich and romantic character as that which I have just described, being in depth about two hundred feet, down limestone rocks, in places assuming the character of cliffs. In its bottom was a water-course, containing water in pools only; but it must be borne in mind, that it was now the very end of the dry season. The party all came up, and we laid ourselves down under the grateful shade of the mimosas. Those who chose took their fill of water. I had made a rule never to taste it, except to wash out my mouth, from sunrise until we halted for the night; for I found that drinking water promoted profuse perspiration and more ardent thirst, and I preferred practising a little self-denial to enduring the greater pangs arising from indulgence.

Whilst I stretched my weary length along under the pleasant shade, I saw in fancy busy crowds throng the scenes I was then amongst. I pictured to myself

the bleating sheep and lowing herds, wandering over these fertile hills; and I chose the very spot on which my house should stand, surrounded with as fine an amphitheatre of verdant land as the eye of man has ever gazed on. The view was backed by the Victoria Range, whilst seaward you looked out through a romantic glen upon the great Indian Ocean. I knew that within four or five years civilization would have followed my tracks, and that rude nature and the savage would no longer reign supreme over so fine a territory. Mr. Smith entered eagerly into my thoughts and views: together we built these castles in the air, trusting we should see happy results spring from our present sufferings and labours,—but within a few weeks from this day, he died in the wilds he was exploring.

The stream we were on I named the Buller; we rested some time by it, and when we moved on, some of the advocates of the eight or ten mile a-day system, very unwillingly followed the party. We fell in with a native path, which wound up through a thick scrub in pleasing sinuosities, and emerged upon a table land similar to the one we had traversed this morning. I now followed a course of 169°, and after walking three miles more we arrived at the edge of a valley, of the same character as that wherein the Buller flowed, and through it we had another view of the fertile country to the eastward: into this valley we descended, and finding a water-course running through it with water in pools, I seated myself with such of the party as were up about half a quarter of

a mile from the Mount Fairfax of Captain King, and named this stream the Chapman.

Mr. Walker now came up with the remainder of the party, and reported that Stiles was missing. As he could have no difficulty in finding us, I merely took the precaution to make the men sit in such positions, that he could distinguish us from the summit of the opposite cliffs when he arrived there, and we patiently awaited that moment. Time, however, wore on, and some of the men finding a species of geranium, with a root not unlike a very small and tough parsnip, we prepared and eat several messes of this plant. At length, no signs of Stiles having been seen, I sent Mr. Walker, Corporal Auger, and Kaiber, to the top of the cliffs we had descended, to try if they could discern anything of him or his tracks. During their absence I expressed, in the hearing of some of the men, my anxiety lest he should have lingered behind, and have fallen in with the natives; upon which they smiled, and said that "Tom Stiles was a man who did not care about the natives; and that only that morning he had said he didn't mind for all the natives in the island, d—— them;" and that they thought he had stopped behind on purpose.

The absence of Mr. Walker and his party continued much longer than I expected, and just at the moment that I had become rather alarmed about it, Coles reported to me that he saw natives on the opposite cliffs, jumping about, and running up and down brandishing their spears, in the manner they

do before and after a fight. Coles was at this time posted as sentry on a terrace, just above where we were, and the ascent to which was very difficult. I got up on this as fast as I could; it was only two or three yards broad, and ran apparently along the whole length of the valley. The natives used it as a path, and a very steep hill rose behind it. I could not, however, make out the natives, and as the opposite cliffs were a long way off, I thought that Coles might have been mistaken. When I told him this, he merely said "Look there, then, Sir," and pointed to the top of Mount Fairfax, distant about 400 yards, due north of us, and sure enough there were a party of natives, well armed and going through a variety of ceremonies, which the experience of centuries had proved to be highly efficacious in getting rid of evil spirits. In the present instance, however, their wonted efficacy failed, but the natives appeared every moment to be getting more vehement in their gestures.

Our situation by no means pleased me: Stiles and a separate party of our own men had mysteriously disappeared in the direction where Coles had first seen the natives, by whom we were, in a manner, surrounded, and that in an abominable position, for they could steal amongst the underwood, close above us in our rear, and annoy us with missiles of all sorts; whilst from the extent and thickness of the scrub it was impossible to occupy it effectually against treacherous (or rather, bold and skilful) enemies. On the other hand, I could not quit

my present position and occupy a more favourable one, for, in the event of Mr. Walker and Corporal Auger being pressed by the natives and retreating on us, it was our duty to be at that spot where they would calculate on finding us, and an effectual assistance. I made, therefore, the best disposition of my little force I could, and occupying the centre of the party, I had the satisfaction of seeing our wild friends on Mount Fairfax, blowing strongly at us, and capering more furiously than ever, when they beheld our unaccountable manœuvres.

It was fortunate that poor Kaiber was absent, for so fearful an exhibition of sorcery would have altogether upset his nerves; but the British soldiers and sailors I had with me remained surprisingly calm; whilst the natives, having exhibited their antics for a few minutes more, suddenly withdrew in a hurried manner. I, therefore, made up my mind for a surprise, and we anxiously waited to see from what quarter the attack would come.

The cause of their disappearance was, however, soon explained. Mr. Walker, Corporal Auger, and Kaiber came winding down the hills under Mount Fairfax, and gave the following account of their proceedings:—On ascending the cliffs opposite to us, they had found Stiles's tracks, and had followed them until they reached the sea beach; on passing the stream on their way there, they found a place where he had halted and made up all his flour into dampers; but on coming out on the shore, they saw a large party of natives seated on the sand-hills in

front, whilst others were fishing in the sea at this point; and the tracks of Stiles turned off into the interior: this hero, who wished to encounter all the natives of the island single-handed, had evidently fled from them. Mr. Walker had been unable to follow his tracks any further, and had, therefore, thought it most prudent to return to the main party.

From the circumstances of Stiles having thrown away part of his clothes, and having made such a large quantity of dough to bake into dampers at the first convenient opportunity, together with various expressions he had dropt in the presence of the men, there could be no doubt but that he had purposely quitted the party; yet to abandon him to his fate amongst natives, who were by no means friendly in their gestures and appearance, required a degree of resolution I was unprepared at that moment to exercise. To leave him without a search, was to sacrifice one life—to allow one man to perish—whilst occupying one or two days in looking for him would merely increase the temporary sufferings of the rest; whilst the loss of time would probably occasion no other bad result than a little more personal privation; and this, in order to try to save the life of a fellow-creature, I conceived it to be my own duty, and that of the rest of the party to undergo. Influenced by these reasons, I desired all hands to prepare to start in search of Stiles.

Strange, however, to say, my resolution was scarcely made known, ere much grumbling arose; and this chiefly amongst those men who had lately

been loudest in their praises of the system of only marching a few miles a day, and occasionally halting for a day or two, where we could get native roots to eat—in fact, amongst those whose foolish ideas had led Stiles to desert the party. We, however, moved on in the direction of the spot where Kaiber had lost the tracks, and on our way over the high ground we met a native with his spear and a handful of fish; he was lost in thought, and we were close to him before he saw us: when he did so, he took no notice whatever of us, but without even quickening his pace, continued in his original line of direction, which crossed ours obliquely; as he evidently did not wish to communicate with us, I directed the men not to take the least notice of him, and thus we passed one another. He must have been a very brave fellow to act so coolly as he did, when an array so strange to him met his eye.

On arriving at the beach, to the south of a Bay or Harbour,* which the pressure of circumstances precluded me from examining, we could find nothing of Stiles's tracks: he appeared to have gone off due east, in the hope of crossing our route, but being in advance of us, and consequently not finding our traces, it was impossible to say in which direction he might have turned. The natives now mustered a very large force, and occupied the high hills (almost cliffs) which lay a few hundred yards

* For a further description of this Harbour, which has been since denominated "Port Grey," see the account of the schooner Champion's Expedition in the 6th chapter.

to our left, and as they had such an advantageous position, and could at any moment surprise us amongst the low sand-hills, where we were searching for Stiles's footsteps, our situation was one of great danger. At length, finding it impossible to keep the men steady, I moved them up to the higher ground, where we could have met the natives upon a footing of equality. They appeared, although very numerous, to be now by no means hostile, merely standing on a high hill, watching us and calling out —"Yoongar kaw," or "Oh, people!" whilst Kaiber, who knew nothing of their vile magical practices, and, therefore, regarded them as mere ordinary flesh and blood, was very ready to communicate with them; but as they made no other advances, I thought it better merely to remain near them for the night, occasionally firing a gun, in hopes Stiles might hear it, and, with this intention, I selected a spot for our encampment.

April 8.—We started very early this morning, and Kaiber exerted himself to the utmost to find Stiles's traces. At the end of three miles, on a course of 180°, we descended from the elevated scrubby plains we had been moving along to the lowlands, and on reaching this, came upon the bed of a small water-course. I here halted the party; and as it was uncertain when we might again fall in with water, I commenced a search for it with Kaiber, but after travelling rapidly over a good deal of ground, without seeing either water, or any traces of Stiles, we rejoined the party very much fatigued.

For the next two and a half miles we wound along low, grassy, swampy plains, thinly wooded with clumps of Acacias, and then entered upon low scrubby plains, bounding the sea-shore. I here caught sight of Stiles, just a-head of us, and coming in from the eastward: he was very glad once more to find himself in safety; and his comrades seemed pleased to see him again, although many a suppressed murmur had met my ears during our morning's walk, at the trouble I was taking to look for him.

Four miles further, over similar plains in a s. by E. direction, brought us to a river, about five-and-twenty yards wide, which I named the Greenough; and travelling up it a short distance, we found a spot where we could cross by stepping from rock to rock. Its waters were quite salt. I continued our route for about three miles, when I found it was impossible to induce some of the men to walk any further; they laid sullenly down, and were so fully convinced that I was pursuing a wrong system in marching so far in a day, and never halting for two or three days to refresh, as they wished, that I could do nothing with them, and was therefore forced to sit down too. Corporal Auger soon afterwards found water near us, and I moved the party down to it.

Finding water in some degree revived their spirits, and I contrived to get them to proceed seven miles more before night-fall, the way being over sandy open plains very favourable for walking. We passed a large assemblage of native huts, of the same permanent character as those I have before mentioned: there

were two groups of those houses close together in a sequestered nook in a wood, which, taken collectively, would have contained at least a hundred and fifty natives. We halted for the night in the dry bed of a water-course, abounding in grass, so that we again enjoyed the luxury of a soft bed. At first I thought that we were near natives, from hearing a plaintive cry, like that of a child, but Kaiber assured me that it was the cry of the young of the wild turkey. In the course of this day we travelled across the heads of two bays, which were indistinctly visible through the woods.

April 9.—The first three miles of our route this day lay over sandy scrubby plains; we saw however a good country to the eastward. I found that a man of the name of Charley Woods was much knocked up; he was a supporter of the eight or nine miles a day system, and had a very heavy load, with no portion of which could I induce him to part; he however insisted on sitting down every half mile, and detaining the party, and as I found that they got more worn out and weaker, and the impression in favour of long rests and short marches became much stronger, I thought it more prudent to acquiesce for the present.

We now reached a very thick belt of trees, pushing through which was a task of great difficulty, but at length we emerged upon some clear hills, overlooking a very extensive and fertile valley, from which arose so dense a fog, that portions of it appeared to be a large lake. Into this valley we

descended, and the remainder of the day, until near noon, was spent by me in endeavouring to get the men to move. We this morning for the first time met with Zamia trees, and about 12 P.M., came down upon the large sandy bed of a dried up river, which I named the Irwin, after my friend Major Irwin, the Commandant at Swan River; following this for half a mile, we found a native well, dug to a considerable depth in the bed, but all our scraping here was vain. Water was found at a great depth, but so shallow that we could not dip it up. Some of the men saw four native boys playing in the grassy plains near us; directly, however, the little fellows perceived us, they scampered off at their utmost speed, and no doubt ever since that period they have been firm believers in the existence of ghosts.

The men now began to complain much of the want of water, and I for some time followed the traces of these native boys, who had come from the southward and eastward, in the hope that their tracks would lead us to it, but the grumbling and discontent of some of the men was so great, that I found it almost impossible to induce them to move. My object was to get them to walk to a high peaked hill, distant about five miles from us in a due S.E. direction, and under which I felt certain, from its height, that we should find water, but I was obliged at last to give up this idea: Charles Woods would not stir at all, and several of the men followed his example; they laid down on the ground, and no inducement could prevail on them either to move or to

abandon a portion of their loads; and this obstinacy on their part was accompanied in some instances with the most blasphemous and horrid expressions: indeed I could not conceal from myself the fact of its being the general impression, that my mode of proceeding was "killing the men," and that consequently some of them had arrived at the resolution of compelling me by their conduct to adopt their favourite system of short marches and long halts. But I was still aware of the disastrous consequences which must necessarily result from such a mode of proceeding, and determined to have nothing to do with it.

In the course of the afternoon, I managed to get the party to move about a mile and a half, in an easterly direction, but they here again sat down, and could neither be induced to walk or to part with their bundles. As they had not tasted water to-day, I selected the best walkers, viz., Corporals Auger and Coles, Hackney, Henry Woods, and Kaiber, and went off to look for some to bring to the rest. We were now on a well-beaten native path, which traversed a fertile tract of country, and along this we continued our route, walking as rapidly as we could, for night was coming on apace. From this path we made frequent divergencies, but found no water; in one instance we met with a native well of great depth, where a party of them had been drinking a few days before, but it was now quite dry. We therefore continued our search, and just as it was growing dark, had made about

seven miles of a circuitous course, and found ourselves at the foot of the high-peaked hill seen this morning, named by me Water Peak. I still hurried along the native path, and was so wrapt up in the thoughts of our present position, that I passed, without seeing it, a beautiful spring that rose to within a few inches of the surface. Near this the natives had built a small hut, covered with boughs, concealed in which they might kill the birds and animals which came to drink at this lone water; the keen eye of Coles in a moment detected the little pool, and our thirst was soon assuaged.

For a few minutes we lay on the bank of this clear spring, resting our wearied limbs, and admiring the scenery around us. There is a something in the wild luxuriance of a totally new and uncultivated country, which words cannot convey to the inhabitant of an old and civilized land,—the rich and graceful forms of the trees, the massy moss-grown trunks which cumber the soil, the tree half uptorn by some furious gale, and still remaining in the falling posture in which the winds have left it, the drooping disorder of dead and dying branches, the mingling of rich grasses and useless weeds, all declare that here man knows not the luxuries the soil can yield him: it was over such a scene, rendered still more lovely by the falling shadows of night, that our eyes now wandered.

I roused the men again, and we commenced our return to the party, loaded with a supply of water. It was now dark, and we soon wandered from the

path. Kaiber took a star for his guide, and led us straight across the country; but our route lay through a warran ground, full of holes, and in the darkness of the night we every now and then had a tremendous tumble, so that at the end of about four miles, I thought that it would be imprudent to proceed farther, as we every moment were in danger of breaking a limb or seriously injuring ourselves. I therefore halted for the night, and as we were unable to light a fire both on account of the heavy dew, and of having no proper materials with us, the first portion of it passed wretchedly enough, indeed, weary as I was, I found it necessary to walk about in order to preserve some slight degree of warmth in my frame.

At length, however, the men, who were much too cold to sleep, got up, and renewing their efforts, succeeded in kindling a blaze. Kaiber soon collected plenty of wood, and as I was unable to sleep, I passed the night in meditating on our present state.

I felt sure that if the men persisted in their resolution of moving slowly, a lingering and dreadful death awaited us all; yet my opinion was a solitary one. Mr. Walker had in many instances plainly and publicly shewn, that he on this point differed with me; and he was a medical man, and one who certainly never shrank from any danger or toil, which he thought it his duty to encounter. The most, therefore, I could say against those who were opposed to my system of moving was, that I conceived them to be guilty of a grievous error in

judgment; but it was not until our separate opinions had been tested by the future, that it could be definitely pronounced who was right. Nevertheless, those who have been much with men compelled to make long marches, cannot fail to have remarked how readily and foolishly they find excuses to enable them to obtain a halt, and such persons would probably have agreed with me in suspecting that natural indolence of disposition, strengthened by fatigue and privation, might induce men to adopt, without a very strict investigation, any opinion falling in with their immediate feelings of feebleness.

Being firmly convinced that these men intended to pursue a plan of operations, which would entail great misery both upon themselves and the others, I considered that I ought undoubtedly to endeavour to save them from the danger which I foresaw impending over them; and this could only be accomplished by my making forced marches to Perth, and sending out supplies to meet them, before they were reduced to the last extremities. Had I foreseen a week ago that I should be compelled eventually to adopt such a step, I would then have taken with me all such as were willing to march, and have left the others; but this time had passed. My movement to Perth must now be accomplished with the greatest expedition, or it would be useless; and to take any one with me who was so much reduced as to have delayed, impeded, or perhaps altogether to have arrested our progress, would have sacrificed the lives of all.

CHAPTER III.

FROM WATER PEAK TO GAIRDNER'S RANGE.

RETURN TO THE PARTY—DESTRUCTION OF USELESS BAGGAGE—CRITICAL SITUATION — DIVIDE THE PARTY, AND PROCEED WITH THE STRONGEST TO PERTH FOR ASSISTANCE —ARRANGEMENTS AT STARTING—THE ARROWSMITH RIVER —NATIVES—MOUNT HORNER—GAIRDNER'S RANGE—GENEROUS CONDUCT OF ONE OF THE MEN.

April 10.—THE morning's dawn found us in the vicinity of our comrades, and just as the thick grey mists began heavily to ascend from the low plains on which I had left the party, we emerged from the bush upon the native path, down which we had travelled the preceding evening; here I turned northward, and a few minutes more placed the party in our view. Some of them were missing. I felt alarmed lest a new misfortune had happened, and hurrying on, eagerly asked where they were. The answer given will describe more truly their position, than the most minute detail could do; it was—"They are just gone into the bush to suck grass, Sir." This semblance of extreme thirst must, however, I suspect, have been in some measure a piece of affectation upon their parts, for upon the morning of the day before, they had had a plentiful supply of

water: whether, however, their extreme sufferings were true or feigned, mattered not, we fully supplied their wants; and then I immediately ordered preparations to be made for our further progress.

We moved on in the direction of the spring of water, which lay about half a mile to the eastward of our true line of route. Our movements were soon again delayed by Woods, who began, as usual, to lie down, and declare his inability to proceed any further. I desired him to leave behind the heavy load he was carrying; but, as upon former occasions, he again declared his determination to die rather than part with this mysterious bundle, which appeared to possess an extraordinary value in his estimation. It was easy to see from his appearance, that he was now really ill, and unable to carry such a weight as he was striving to do. At length he again laid himself down, declaring that he was dying, and as I determined no longer to see his life endangered by his so obstinately insisting on carrying this bundle, I took it up, and informing him of my intention to pay him the full value of any property of his that I might destroy, I proceeded to open it with the intention of throwing all useless articles away.

Upon this announcement of mine, he burst into tears, deplored alternately his dying state, and the loss of the bundle, and then poured forth a torrent of invectives against me, in the midst of which I quietly went on unfolding the treasured parcel, and exposing to view the following articles:—Three yards of thick

heavy canvass; some duck, which he had purloined; a large roll of sewing thread, ditto; a thick pea jacket which I had abandoned at the boats, and had, at his request, given to him; and various other old pieces of canvass and duck; also, a great part of the cordage of one of the boats, which he had taken without permission.

When these various articles were produced, it was difficult to tell which was the prevailing sentiment in the minds of some of the party—mirth at thus seeing the contents of the mysterious bundle exposed, or indignation that a man should have been so foolish as to endanger his own life, and delay our movements for the sake of such a collection of trash: a pair of shoes, and one or two useful articles were retained, the remainder were thrown away, and in a few minutes we were again under weigh for the spring of water.

Another hour's march brought us to the spring; and those who with me had been marching through a great part of the night, gladly laid down to rest; but I soon roused myself again, being urged by the pangs of hunger. Fortunately, I had shot a crow in the morning, and now gathering a few wild greens that grew about the water, I cooked a breakfast for myself and the native, without being obliged to draw upon my little store of flour. This frugal repast having been washed down by a few mouthfuls of water, I resumed my meditations of the previous night.

The following appeared to be our true position.

We were about one hundred and ninety miles from Perth, in a direct line measured through the air. None of the party had more than six or seven pounds of flour left; whilst I had myself but one pound and a half, and half a pound of arrow-root; the native had nothing left, and was wholly dependant on me for his subsistence. Now, we had been seven days on our route, and had made but little more than seventy miles, and as the men were much weaker than when they first started, it appeared to me to be extremely problematical whether we should ever reach Perth, unless some plan different from what we had hitherto pursued, was adopted. And even granting that we did eventually make this point, it was evident that we must previously be subjected to wants and necessities of the most cruel and distressing nature.

Yet it was quite manifest, from recent events, that the majority of the party had not only made up their minds not to accelerate their movements, but had fully resolved to compel me to pursue their system of short marches and long halts. Being fully aware of the danger which threatened them, it remained for me to act with that decision which circumstances appeared to require, and to proceed by rapid and forced marches to Perth, whence assistance could be sent out to the remainder. For this purpose it was necessary that all those who accompanied me should be good walkers and resolute men; for if any accident happened to the portion of the party I took

with me, arising either from want of energy, want of discipline, or any other causes, that portion of the party which remained behind would have been reduced to the last extremity.

Having formed this resolution, it became necessary to make a selection of those who were to accompany me. In determining, however, upon this point, I had but little difficulty; for it was evident that those men who, during our late toils, had shewn themselves the most capable of enduring hardships, privations, and the fatigue of long and rapid marches, were those who were the best suited for the service I now destined them for. The following was the division I made of the party: I named—

Corporal Auger,
Corporal Coles,
H. Woods,
W. Hackney,
Kaiber, the native,

as those who were to accompany me, and left the remainder under the command of Mr. Walker.

In making my arrangements with Mr. Walker, a very serious difficulty arose upon his part, and one from which I immediately augured the worst of consequences. On quitting the boats I brought away with me Captain King's chart of the coast, between North-west Cape and Cape Leeuwin, and had hitherto carried it along with my papers and sketches. I wished Mr. Walker to take this chart with him, for the purpose of recognising his position

by means of the islands and headlands, as he advanced along the coast. No inducements upon my part could, however, persuade him to take charge of it. It was in vain that I urged on him the well known fact, that nothing encourages men in a long journey so much as knowing the exact distance they have travelled, and what extent of country they have still left to traverse. It was in vain that I assured him he would, from his inexperience in calculating distances in the bush, soon get confused in his reckoning; and that the men, finding out his error, would lose all trust and confidence in him, whence would spring want of discipline and disorders of various kinds; he knew that I much valued this chart, and had apparently taken it into his head that I wished to disencumber myself of it, and to entail the duty of carrying it on him.

He at length proposed to me to allow him to cut the chart up, in which case he said he would carry on the part he wanted, and leave the rest. I would not, however, part with so valuable a document, for it contained my route up to that point, and the public utility of the expedition mainly depended on the preservation of it. He next requested me to make a copy of it for him; this I assured him, under existing circumstances, it was utterly impossible for me to do, with sufficient accuracy to answer the intended purpose, and I therefore would not attempt it. He then applied to Mr. Smith, who coincided in my opinion; but ever willing to oblige, he made as accurate a copy as he could, which I in vain repre-

sented to Mr. Walker he would find utterly useless. His unreasonable reluctance, however, I could not overcome.

The next matter to arrange was, what place should be fixed on as the point of rendezvous, to which assistance was to be sent to those, who were left to follow with Mr. Walker. This was soon arranged. Mr. Smith had previously been with me to a place called Goon-mar-ra-rup, on the Moore River, about fifty-five miles to the north of Perth; and it was agreed that the party should proceed along the coast as they best could, until they made the Moore River, where I would have another party stationed with provisions to meet them; and in order that they might not pass this river, it was settled that the party who went out to meet them should separate into two, one of which would remain at this point on the Moore River, about twelve miles from the sea, whilst the other was to proceed down to it, leaving, besides their tracks, marks to shew where they had passed; and then, in the event of not finding those they were in search of, this last detachment was to push still further northward to look for them.

As soon as the arrangements were concluded, I assembled the men, and publicly repeated these directions to them; and to such as Clotworthy I addressed strong admonitions as to their future conduct. Many of them did not appear to be in the least aware of the critical situation they were placed in; I however entertained great fears for the safety of some of them. Poor Smith was at this

time in a very delicate state of health, and his courage and gentleness had so endeared him to me, that the sight of his sickly face made me long to be on the march to send out help to him. For Mr. Walker I had no fear; I have never known any one endowed with a greater degree of patient endurance; indeed, had he not, from a mistaken good nature, been too familiar with the men, no one could have been more admirably adapted for the trying position in which he was placed; and even as events turned out, I doubt if any one could have been found, who would have endured more, or would have gone through greater exertions to save those under his command.

The party I left, and who were not required to proceed by forced marches, consisted of—

Mr. Walker,
Mr. Smith,
Thomas Ruston,
C. Woods,
T. Stiles,
A. Clotworthy.

Before parting with Mr. Walker and Mr. Smith, I again urged them to push steadily onwards, and never to idle for an instant; but I do not think that either of them were fully aware of the dangers they had to contend with. Poor Smith, as he squeezed my hand, begged me to send out a horse for him, if one could be procured, and also some tobacco; he said the only thing he dreaded was want of water.

Mr. Walker smiled, and told me to look out for

myself, that he was not in Perth before me, and several others seemed to participate in his feeling, and to regard my plan of proceeding as the height of folly.

I left with Mr. Walker's party every thing that was really useful,—such as the cooking sauce-pan, and the only hatchet we had. These were very valuable to them, for had they come into a grass-tree country, they might have subsisted for a long time upon the tops of these trees, as Mr. Elliott did upon a former occasion; for he, together with two men, lived upon them for fourteen days. This very useful implement they however threw away the second day after we parted. We also left them all the fishing-hooks.

Mr. Walker's party instantly commenced on the system of halting, and instead of moving on in the afternoon, remained where they were that day for the purpose of resting themselves.

The country we travelled over for the first two miles was pretty good, being a series of grassy plains. At this point we came to a belt of thick wood, which we found exceedingly difficult to traverse. We then continued our S. by E. course for four miles further, over undulating sandy downs, and halted for the night in a small clump of Banksia trees, which afforded plenty of wood for our fires.

April 11.—About an hour before daylight I roused the party, and as soon as it was light enough to distinguish the surrounding objects, we started.

Our route lay along a series of undulating sandy hills, which sloped down to a fertile plain, four or five miles in width, on the western side of which rose a low range of dunes, and beyond these was the sea. We found the walking along these hills very difficult on account of the prickly scrub with which they were covered, and the general appearance of the country to the eastward was barren and unpromising.

The course I pursued was about S. by E., but we soon found ourselves embarrassed in thick woods, through which it was almost impossible to force a way: the trees were not large, but so matted together, that it required my utmost exertions to prevail upon the men to persist in pushing through them; indeed it will afterwards be found, that these woods had a most disastrous effect upon the spirits of that portion of the party which followed me. It was, however, absolutely necessary to make our way through one of these, which formed a belt of nearly a mile in width, running almost east and west as far as the eye could see in each direction.

I therefore gave a bold plunge into the bushes, followed by the native, and slowly by the other men, who kept alternately groaning from fatigue and pain, and uttering imprecations against the country they were in. Having cleared this wood, I turned rather more inland, and we pursued our route over barren scrubby plains, and after having travelled about fifteen miles over this uninteresting description of country, we suddenly found ourselves on the top of

a low range, which overlooked a most luxuriant valley of about three miles in width, its general direction appearing to be from the E.S.E. I immediately knew, from the appearance of the country, that we were near some large river; and whilst descending into the valley, I indulged in speculations as to the size of that we were about to discover, and as to whether Providence would grant me once again to drink a draught of cool river water.

I soon, however, began to fear that my expectations were to be disappointed. We had already proceeded more than two miles of the distance across the valley; and although the soil was rich and good, we had yet seen nothing but dry water-courses, inconsiderable in themselves, yet apparently, when united, forming a large river. I still, however, entertained hopes of finding water, for I saw numerous tracks of natives about, and the whole of this valley was an extensive warran ground, in which they had that very morning been digging for their favourite root.

At length, just as my patience began to wear out, we ascended, out of a dry water-course, a rise rather more elevated than the others we had met with in crossing the valley; and from the summit of this a curious sight met our view: beneath us lay the dry bed of a large river, its depth at this point being between forty and fifty feet, and its breadth upwards of three hundred yards; it was, at times, subject to terrific inundations; for along its banks lay the trunks of immense trees,—giants

of the forest, which had been washed down from the interior in the season of the floods; yet nothing now met our craving eyes, but a vast sandy channel which scorched our eye-balls, as the rays of the sun were reflected back from its white glistening bed.

I picked out the most shady spot I could for the men to halt at, then descended into the bed of the river to search, with the native, for water; and immediately on scraping a hole a few inches deep in the bed of the river, the water came streaming into it, for the sand composing the bottom of the water-course was completely saturated, and I afterwards found that there were large pools of it, immediately above and below where we were.

The wants of the men having been thus supplied, I determined, as it was intensely hot, to halt for an hour or two; we each of us, therefore, eat a little doughboy, or piece of damper, and the men then lay down to rest. As I sat musing alone, the first thought that struck me was, how providentially it happened that we had not fallen in with this river in the season of the floods, as our crossing it then would have been utterly impossible. But my reveries were soon disturbed by hearing the call of a native from the opposite bank, and I roused up poor Kaiber from his sleep, that he might ascertain what was going on upon the other side. His quick eyes soon detected natives moving about amongst the bushes; but on farther examination he ascertained that there was only one man, who walked as if he had been wounded, the rest of the

party being made up of women and children, who were digging for roots; they were quite unconscious of our presence, and we lay snugly behind a bush, watching all their movements. As soon as they had dug a sufficient quantity of roots for their purpose they descended to the bed of the river, and walked up to a pool about one hundred yards above our position, where they all drank and then sat down to cook their roots. I ordered the men to keep themselves as quiet as possible, so that we in no way disturbed these poor creatures; and when at length the party moved off we passed them in a diagonal direction, so as to give them an opportunity of seeing us, without frightening them. When first we emerged into view they began to run away; but when they saw that we still moved steadily on without noticing them, they were no longer alarmed, but stood still, gazing at us with the greatest wonder and amazement; the youngest children standing behind their mothers, peeping cautiously out at us; and many a strange thought must have passed through the breasts of these natives, as they saw us wind in regular order up the opposite hill. This tribe was the most northern one that I had seen wear the kangaroo-skin cloak.

Another mile and a half in a S. by E. direction brought us to a low range to the south of this river, which I named the Arrowsmith River, after Mr. John Arrowsmith, the distinguished geographer. From this range we had a fine view of the rich valleys drained by this important stream. These val-

leys ran nearly north and south between the interior range and the sandy limestone range parallel to the coast, on which we now were; but the river must also, of course, from its magnitude, penetrate the interior range, which was only distant about sixteen miles from us; a very remarkable peak in the latter, which bore E.N.E. from this point, I named Mount Horner, after my friend Leonard Horner, Esq.

It appears from the report of the party who came along the coast, that this river loses itself in a large lake, between which and the sea a great bar of dry sand intervenes in the dry season; there is, however, a very fair proportion of good country in the neighbourhood of the Arrowsmith.

In the course of the evening we travelled six and a half miles further in a S.S.E. direction, over barren, sandy, scrubby plains, which extended on all sides as far as the eye could see, and even the interior range appeared to be perfectly bare. Towards nightfall we were all quite worn out from the difficulty we had experienced in walking through the prickly scrub, yet I could see no place that afforded sufficient wood to enable us to make a fire, and as most of us had no covering with us, and the nights were intensely cold, we had every prospect of passing a most wretched one; but at length I spied two clumps of Banksia trees, the nearest of which we just reached as it became quite dark. The other clump was about a quarter of a mile to the eastward of us, at which I soon distinguished native fires; as the men were, however,

much exhausted, I thought it better not to mention this circumstance to them, and Kaiber and myself, who always slept at a little fire alone, kept a good look out during the night.

This evening we found the Bohn or *Boh-rne*, a native esculent root, and it is the most northern point at which I have met with it.*

April 12.—Before dawn this morning our native neighbours, who doubtless were not pleased at our sleeping so near them, began to *koo-ee* to each other, which is their usual signal for collecting their forces; and as our safety depended upon none of the party being incapacitated by a wound or other cause, from proceeding with the utmost rapidity, I at once roused the men, and we resumed our way.

In the course of the day we made a march of twenty-five miles in a S. S. E. direction, the whole of this distance being across elevated undulating sandy plains, covered with a thick prickly scrub, about two and a half feet high; these plains were however occasionally studded with a few Banksia trees, but anything more dark, cheerless, and barren than their general appearance, can scarcely be conceived.

About half an hour before sunset we came to the bed of a dry water-course, the direction of which was from south-east to north, so that it was probably a tributary of the Arrowsmith. We were fortunate enough to find a small pool of water in

* A small red root, somewhat resembling in flavour a mild onion.

it, yet the large flights of birds of every description, that came here for the purpose of drinking, shewed the rarity of water in these parts. We made several attempts to get a shot at them, but they were so wild, and we were so worn out and weak, that all our exertions were unsuccessful. In the course of the evening one of the men made up my last pound of flour into a damper for me, and I supped on a spoonful of arrow-root.

April 13.—On waking up this morning, I found that in the night a rat had gnawed a hole in the canvass bag, in which my little damper was placed, and had eaten more than half of it; this was a very serious misfortune, as all my provisions were now reduced to three table-spoonfuls of arrow-root, and the morsel of damper left me by the rat. As I had shared my provisions with the native, my situation was far worse than that of any of the others, and he, poor fellow, had become so dispirited, and weak, that he was incapable of searching for his food. Indeed the productions of the country, through which he had hitherto passed, were so different from those of the one in which he had lived, that the various kinds of roots and vegetables were, with one or two exceptions, quite unknown to him.

We made a very good march of it this morning, having travelled nineteen miles in a nearly south direction before 12 o'clock. Soon after starting, we sighted Mount Perron, distant about two and twenty miles, and seen over the waste and barren

plains which surrounded us, it was a very remarkable object.

We halted at noon for about two hours, during which time I made my breakfast with Kaiber, sharing my remaining portion of damper between us. It was almost a satisfaction to me when it was gone, for, tormented by the pangs of hunger, as I had now been for many days, I found that nearly the whole of my time was passed in struggling with myself, as to whether I should eat at once all the provisions I had left, or refrain till a future hour. Having completed this last morsel, I occupied myself for a little with my journal, then read a few chapters in the New Testament, and having fulfilled these duties, I felt myself as contented and cheerful, as I had ever been in the most fortunate moments of my life.

Soon after two P.M., we resumed our journey, travelling for about eight miles in a due south direction, over plains similar to those we had passed yesterday and this morning, and then began to ascend a red sandstone range, of the same description as the Perth ironstone, and thinly studded with black bay trees; I named this range Gairdner's Range, after my friend Gordon Gairdner, Esq., of the Colonial Office, and after continuing a gradual ascent for about four miles, I found that we were in the neighbourhood of a forest, at the outskirts of which I chose a spot for our halting-place, which afforded plenty of firewood, but was deficient in water. As we had now, however, marched thirty-one miles without

seeing water, and were all perfectly worn out, I judged it more prudent to halt where we were.

Kaiber here brought in some of the nuts of the Zamia tree; they were dry, and, therefore, in a fit state to eat. I accordingly shared them amongst the party. Several of the men then straggled off to look for more, and were imprudent enough, before I found out what they were doing, to eat several of the nuts which were not sufficiently dried, the consequences of which were, that they were seized with violent fits of vomiting, accompanied by vertigo, and other distressing symptoms; these, however, gradually abated during the night, and in the morning, although rendered more weak than they were before, the poor fellows were still able to resume their march.

Soon after the fires had been lighted, I was sitting alone by mine, as the shadows of night were just falling over the wild hilly scenery with which we were surrounded; I had no water to cook a portion of the three spoonfuls of arrow-root yet left me, and I saw each of the others preparing his scanty portion of food. The native had at this time gone away to look for Zamia nuts, and it may be imagined that many almost undefined feelings at such a time thronged rapidly through my mind. Whilst thus thinking, I heard Hackney propose to Woods to offer me a share of their little store of food:—"No," said Woods; "every one for himself under these circumstances; let Mr. Grey do as well as he can, and I will do the same."—"Well, then, I shall give him

some of mine at all events," said Hackney; and a few minutes afterwards he came up to my fire, and pressed me to accept a morsel of damper, about the size of a walnut. I hesitated at first whether to do so or not, but being aware that when we came into a country where game was to be found, I could, by means of my gun, provide enough amply to repay this lad, I took it, after several refusals, and having it as often warmly pressed upon me.

I was much affected by the kindness of Hackney, who was a young American; and I regret to add that I felt more hurt than I ought to have done at the remark of Woods.

CHAPTER IV.

FROM GAIRDNER'S RANGE TO PERTH.

THE HILL RIVER—DISCOVERY OF A NATIVE PROVISION STORE—BARREN COUNTRY—SUFFERINGS FROM THIRST—SMITH'S RIVER—LONG AND UTTER DESTITUTION OF FOOD AND WATER—UNSUCCESSFUL SEARCH FOR WATER WITH KAIBER—HIS TREACHEROUS INTENTIONS—RETURN TO THE MEN—DISTRESSING SYMPTOMS FROM THIRST—LAST EFFORTS—FORTUNATE DISCOVERY OF A MOIST MUD-HOLE—PANGS OF HUNGER—RIVER OF RUNNING WATER—NATIVE SUPERSTITIONS—MISERY FROM RAIN AND COLD—PASS THE MOORE RIVER—JOYFUL INTERVIEW WITH A FRIENDLY TRIBE—NATIVE HOSPITALITY—SUPERSTITIONS OF MY MEN—ARRIVAL AND RECEPTION AT PERTH.

Sunday, April 14.—We travelled about fourteen miles due south, over a range of high ironstone hills, which were occasionally clothed with grass-trees. The scrub was, however, still thick, prickly, and very difficult to penetrate; the heat was intense, and the whole party were getting very weak. About noon, and when we had just gained a commanding summit, I looked back at Mount Perron, now several miles in our rear; from this point we began to descend into an extensive valley, and at the end of

fourteen miles reached a small river, which I named the "Hill."

We halted at the first pool we came to, and the men, who had a little flour left, boiled two table-spoonfuls of this in about a pint and a half of water, thus making what they called soup. In the mean-time Kaiber came in and told me that he had found some holes, in which the natives had, according to their custom, buried a store of By-yu nuts,* and he at the same time requested permission to steal them.

I reflected for some time on his proposal; I was reluctant to mark the first approach of civilized man to this country of a savage race, by an unprovoked act of pillage and robbery; yet we were now in the desert, on the point of perishing for want of food, the pangs of hunger gnawing us even in our very sleep, and with the means of temporary relief at hand. I asked myself if I should be acting justly or humanely by the others, whose lives were at stake, if I allowed them to pass by the store, which seemed providentially offered to us, without pointing it out.

In my perplexity I turned to Kaiber: his answer was,—"If we take all, this people will be angered greatly; they will say, 'What thief has stolen here: track his footsteps, spear him through the heart; wherefore has he stolen our hidden food?' But if we take what is buried in one hole, they will say,—'Hungry people have been here; they were very empty, and now their bellies are full; they

* The nut of the Zamia tree.

may be sorcerers; now they will not eat us as we sleep.'" "Good,—it is good, Kaiber," I replied; "come with me, and we will rob one hole;"—and accordingly we went and took the contents of one, leaving three others undisturbed. I brought back these nuts to the men, and we shared them amongst us.

We were so weary that we did not start until late in the afternoon, and then travelled s. by E. down the course of the river, making about six miles. It was joined by many small tributaries, and now became a running stream, flowing through a deep grassy valley, in which were many large flats. In the course of the afternoon some of the men had a shot at a native dog; he was a fine fat fellow; but they were unsuccessful, and never did I feel more disappointed than when I saw him cantering away desperately frightened, but perfectly uninjured. I was sufficiently fortunate to shoot a hawk just before night-fall, and we then halted by the side of the river, lighted our fires, and laid down to sleep.

April 15.—In the course of the night I had cooked the hawk which I shot yesterday, and before starting, divided it as follows: I gave the head, entrails, and shanks to the native; then cutting the residue in half, I gave one part to Hackney, who had so generously shared his morsel of damper with me, and kept the remaining portion for myself. Poor Hackney's wan and wasted countenance glowed with pleasure, when this acceptable gift was placed in his hands, and I felt no slight degree of satis-

faction in having an opportunity of shewing him that I felt grateful for his act of generosity to me.

We now followed the course of the river for about two miles further, and saw a considerable quantity of good land along its banks, clothed with feed for stock; but I cannot tell how far back this extends.

The river now ran away nearly due west, under a low range of hills; and still adhering to my original plan, I quitted its banks, and continued my course straight for Perth, travelling in a s. by E. direction. The next two and a half miles led us to the top of a low range. The whole tract of country between this point and the river was arid and barren in the extreme, being devoid of all vegetation but a stunted prickly scrub, and on it we saw no signs either of animal life or water. We here for the first time since quitting Mooresby's Flat-topped Range, saw that the one to the east of us became well wooded, the interval between these two points having been completely bare of trees.

I now halted for about an hour and a half to rest the wearied men, and then again commenced our route over this barren waste. For the next twelve miles we travelled down a gentle descent, leading to a very deep valley, and late in the evening reached some dried up swamps, where we made an ineffectual search for water; we however saw here some parrakeets, and I was lucky enough to kill one, which was about the size of a thrush; several of the men also got shots at these little birds, but

without success. As the day had been intensely hot, and we had tasted no water since morning, we suffered a great deal from want of it, but were at length compelled by darkness to lie down to rest without finding any.

April 16.—We had not travelled above two miles this morning in an E.S.E. direction, when I found that we had reached the bottom of the valley into which we had yesterday evening commenced our descent. In this valley lay the dried up bed of a considerable stream, which I have named the "Smith," after my unfortunate friend. Its direction was from north-east to south. As we were now suffering a good deal from thirst, we made a search in both directions along the bed, but although there were many pools (some of them being twelve or fourteen feet deep), we could not find the slightest indication of water having stood in them for a considerable time: in the bottom of one of the deepest of these pools was a native well, dug to the depth of about seven feet, but even at this distance below the surface, we could see no signs whatever of water. There was much good land in the valley, through which this water-course wound, but all was barren and arid. In the course of the morning we had seen a flight of cockatoos coming from the eastward down the valley in which the bed of the river lay, which at the time made me imagine that water would be found in that direction, in the interior,—and the natives subsequently stated that such was the case,—but our circumstances would not admit such a deviation from

our course, in a search which, if unsuccessful, would have proved fatal. The sun had by this time become intensely hot, and the poor fellows grew faint for want of water, whilst it aggravated their sufferings, that they stood upon the brink of a river, or wandered along its banks with eager piercing eyes, and an air of intense scrutinizing watchfulness, peculiar to those who search for that on which their lives depend. One while they explored a shallow stony part of the bed, which was parched up and blackened by the fiery sun;—their steps were slow and listless, and I could plainly see how faint, weak, and weary they were;—the next minute another pool would be discerned a-head, the depth of which the eye could not at a distance reach;—now they hurried on towards it with a dreadful look of eager anxiety, —the pool was reached,—the bottom seen,—but, alas! no water; then they paused, and looked one at the other with an air of utter despair. As long as they remained on the banks of this river bed, a glimmering of hope remained; but I felt convinced from the general appearance of the country, that there was not the slightest probability of our finding water there, and resolved therefore still to continue a direct route. When I gave this order, the weak-minded quailed before it: they would rather have perished in wandering up and down those arid and inhospitable banks, than have made a great effort, and have torn themselves away from the vain and delusive hopes this water-course held out to them.

With great pain I witnessed, and bore my part

in this distressing scene, but I at the moment felt that it would be necessary to save my energies for other occasions; suspecting that we were in a great tract of desert country, a large portion of which must still be passed, ere we could hope for any alleviation from our sufferings; and I therefore at once commenced carrying into execution the order I had given, by walking on in a S. by E. direction. In about two miles we had gained the summit of the low range, which bounded to the southward the valley where we had so vainly searched for water, and for the next ten miles we travelled over elevated sandy barren plains, thinly wooded with occasional clumps of Banksia trees. On our left was a lofty and well wooded range, distant only about four miles, and on our right lay extensive plains, the western extremity of which, distant about sixteen miles from us, was by the sea; these plains appeared tolerably fertile, being covered with tea-tree swamps, now apparently dried up. I still was led on by the hope, raised by the height of the range on our left, that we might find water issuing from it towards the coast, and had therefore not searched the plains, which lay between us and the sea, indeed I felt fully convinced that the swamps we saw were all perfectly dry, and the native coincided in my opinion; about an hour before sunset, however, we descended towards the plains, and turning due west, we reached them in about half an hour, but found all the swamps quite destitute of water. As soon as it became dark, I lit my

fire, and laid down by it—advising the others to pursue the same course, and to preserve their energies for the morrow—but such advice was thrown away upon men almost perishing with thirst, and every now and then throughout the night, I heard their weak husky voices, as they wandered from swamp to swamp in the neighbourhood, digging holes with pointed sticks in a vain search. Poor Kaiber alone lay crouching by my fire, occasionally feeding it with fresh fuel, and chanting to himself these two songs, in his own language.

Thither, mother oh, I return again,
Thither oh, I return again.

The other had been sung by the mother of Miago, a native who had accompanied Captain Wickham in the Beagle from the Swan River, and it had made a great impression on the natives.

Whither does that lone ship wander,
My young son I shall never see again.
Whither does that lone ship wander.

The night wore heavily on; sleepless sufferers were around me, and I myself began to feel very anxious, as to what the next day might bring. The men had now been already one night and two days without tasting a single drop of water, or food of any kind whatever, for as the only provisions they had left was a spoonful or two of flour each, it was impossible for them to cook this without water; indeed only two of them had even this small supply of flour left, and the rest were wholly destitute.

I personally suffered far less than any of the others, with the exception of the native, and this for several reasons. In the first place I had been long accustomed to subsist on a very small quantity of water, and secondly I had always kept my mind occupied and amused, instead of giving way to desponding or gloomy thoughts. When we halted, and the others laid wearily down, brooding over their melancholy situation, I employed myself in writing up my journal, which was most scrupulously kept; and this duty being concluded, I had recourse to a small New Testament, my companion throughout all my wanderings, and from this latter I drank in such deep draughts of comfort, that my spirits were always good.

April 17.—About an hour and a half before dawn, we started in a S. by E. direction, the native leading the way, for it was yet too dark for me to select points to march upon. As we moved along, we moistened our mouths by sucking a few drops of dew from the shrubs and reeds, but even this miserable resource failed us, almost immediately after sunrise. The men were so worn out from fatigue and want of food and water, that I could get them but a few hundred yards at a time, then some one of them would sit down, and beg me so earnestly to stop for a few minutes, that I could not refuse acceding to the request; when, however, I thus halted, the native in every instance expressed his indignation, telling me that it was sacrificing his safety, as well as those of the others, who were

able to move, for that if we did not find water ere night, the whole party would die. He was indeed as weak from want of food as any of us, for we had made such rapid and lengthy marches, in the hope of speedily forwarding assistance to those left behind, that when we came at night to the conclusion of our day's journey, Kaiber was too much exhausted to think of looking for food.

About two o'clock in the afternoon, the men were so completely exhausted, that it was impossible to induce them to move, and at this period I found that we had only made about eight miles in a S. by E. direction, over plains, studded with small sandy hills, and the beds of dried up tea-tree swamps.

When I halted, the sun was intensely powerful; the groans and exclamations of some of the men were painful in the extreme; but my feelings were still more agonized when I saw the poor creatures driven, by the want of water, to drink their own—the last sad and revolting resource of thirst! Unable to bear these distressing scenes any longer, I ordered Kaiber to accompany me, and notwithstanding the heat and my own weariness, I left the others lying down in such slight shade as the stunted Banksias afforded, and throwing aside all my ammunition, papers, &c. started with him in search of water, carrying nothing but my double-barrelled gun. We proceeded towards the sea. As the natives have the faculty, even in the trackless woods which they have never before been in, of returning direct to any spot they have left,

by however circuitous a course they may have travelled after quitting it, I paid no attention to the direction we were moving in, but followed Kaiber, who roamed from spot to spot in the vain search of water; but we found not a drop. The same arid barren country seemed spread on every side; and when, at length, I began occasionally to stumble and fall from weakness, hope abandoned me, and I determined to return direct to my comrades, and get them to make one more effort to proceed and search for it in a southerly direction.

I, therefore, told Kaiber that such was my intention, and directed him to guide me to the party. With apparent alacrity, he obeyed my orders; but after leading me about some time in an extraordinary manner, he told me that he had lost his way, and could not find them. His look was so very plausible when he said this, and he seemed so grieved at the circumstance, that for a moment I believed his tale; but I felt convinced that we could not be at any very great distance from them, and, therefore, fired one barrel of my gun; the echo of this sound, never heard in these solitudes before, rang loudly through the woods, remoter distances caught it up, and at length it gradually died away: anxiously did I now listen for a repetition of the report, for I knew, were they within hearing, the men would instantly fire again, to acknowledge the signal I had made; but minute after minute passed on, and no answering signal struck my ear. I sat down and applied my ear to the ground; every sense became absorbed in the

single one of hearing, but not the remotest sound that I could distinguish broke the frightful solitude of these vast woods. I remained seated on the ground for a few minutes, still hearing no answer to my shot, till the conviction gradually forced itself on my mind, that the native had been leading me astray. Only two cases could have occurred—either he had done so purposely, for he could not, by any accidental mistake, have taken me to such a distance, as to prevent the party in these silent woods hearing the report of my gun; or otherwise the men had of themselves moved away from the place where I had left them. But I felt assured that this latter supposition was not correct, for ever since I quitted the other portion of the party, I had maintained so strict a discipline, that no man ever separated from the rest without my permission; indeed, I had increased my strictness in these respects exactly in proportion to our increasing difficulties; and I moreover felt sure, that some of the men were by far too much attached to me, ever to abandon me in such a manner.

My situation, however, was undoubtedly very critical, not as far as regarded my own safety, for I was not now more than eighty miles from the nearest settler's hut;—but was it possible for me to return alone to my countrymen, and to say that I had lost all my comrades? that I had saved myself, and left the others to perish? Yet I knew that unless I sent assistance to the first party I had left, the majority of them could not survive; and from

the state I had, about an hour and a half ago, left the others in, it appeared more than probable that they might wait and wait anxiously, expecting my return, until too weak to move, and thus die miserably in the woods.

These thoughts thronged rapidly through my mind,—indeed, I was obliged to do all things quickly now, for I felt that my existence depended upon my finding water within the next three or four hours. The native sat opposite to me on the ground, his keen savage eye watching the expression of my countenance, as each thought flitted across it. I saw that he was trying to read my feelings; and he at length thus broke the silence:

"Mr. Grey, to-day we can walk, and may yet not die, but drink water; to-morrow you and I will be two dead men, if we walk not now, for we shall then be weak and unable. The others sit down too much; they are weak, and cannot walk: if we remain with them, we shall all die; but we two are still strong; let us walk. There lies the sea; to that the streams run; it is long since we have crossed a river: go quickly, and before the next sun gets up, we shall cross another running water" —he paused for a minute, looking steadfastly at me, and then added, "You must leave the others, for I know not where they are, and we shall die in trying to find them."

I now knew that he was playing me false, and that he had purposely led me astray. He was too great a coward to move on alone for fear of

other natives, and dreading to lose his life by thirst, he had hit upon this expedient of inducing me to abandon the others, and to proceed with him. "Do you see the sun, Kaiber, and where it now stands?" I replied to him. "Yes," was his answer. "Then if you have not led me to the party before that sun falls behind the hills, I will shoot you; as it begins to sink you die." I said these words, looking at him steadily in the face, and with the full intention of putting my threat into execution. He saw this, and yet strove to appear unconcerned, and with a forced laugh said, "You play:—from daylight until now you and I have walked; we have wasted our strength now in looking for water for the others, But a short time, and we shall be dead; and you say, search for men whom I cannot find; you tell me, look; and I know not where to look." I now lost all patience with him, and replied—"Kaiber, deceive as you will, you cannot deceive me; follow back our tracks instantly to the point from whence we started: if you do not find them, as the sun falls you die."—"I am wearied," answered he; "for three days I have not either eaten or drank: far have we wandered since we left them, and very distant from us are they now sitting." I could bear this no longer, and, starting up, said—"You deceive: the sun falls! just now I spoke—*Koolyum,—nganga dabbut—garrum wangaga.*" Again he forced a laugh, and said, "Surely, you play." I answered shortly, "Did I ever tell you a lie, Kaiber? I now speak the truth." He seemed, when he saw that I was so

determined, to feel a little uncomfortable, and shifting his position moved rather further from me; this motion on his part induced me to conceive that he intended to run away; in which case I could never again have hoped to rejoin the party; I, therefore, instantly cocked the remaining barrel of my gun, and presented it at him, telling him, that if he ever moved from me further than a certain tree which I pointed out, I would forthwith shoot him, instead of waiting until sunset, as I had originally intended. The decided manner in which I announced this to my friend Kaiber, had the desired effect. He made a few protestations as to the folly of my conduct; lamented most loudly that his mother, and the Dandalup, (a river of his own land,) were so far removed from him; asserted vehemently that the natives of these parts were bandy-legged, rough-tongued beings; that they eat earth, and drank no water; and winding-up with a fervent wish that he might catch one of them wandering anywhere between Pinjarup and Mandurup, in which case he would spear his heart, his kidney, and his liver;—he sulkily resumed his route, and led me straight back to the party in about an hour.

The men, who had been much surprised at the length of my absence, were at first buoyed up with the hope that I had found water; but this hope had at last died away, and they knew not what to conjecture. They were all reduced to the last degree of weakness and want; indeed, I myself was at this period suffering from the most distressing symptoms

of thirst; not only was my mouth parched, burning, and devoid of moisture, but the senses of sight and hearing became much affected; I could scarcely recognise the voices of the rest; and when uncouth unnatural tones struck upon my ear, it took me some time to collect my thoughts in order to understand what was said, somewhat in the way in which one is obliged to act when roused suddenly from a deep sleep. In the same manner my sight had become feeble and indistinct; but by far the most distressing sensation was that experienced upon rising up, after having rested for a few moments. I then felt the blood rush violently to the head, and the feeling produced was as if it were driven by a forcing-pump through all my veins.

Previously to starting again I gave the men orders, which I believed at the time would be, to some at least, the last. I did not attempt to hide from them the dangers which surrounded us; but stating these, I represented that matters had now arrived at such a crisis, that in the event of any of them being unable to proceed, it would be wrong to expect the others to halt on their account; and I therefore called upon all to exert their utmost energies, and boldly to make a last struggle for their lives. My intention, I told them, was to proceed slowly but steadily to the southward, and never once to halt until I dropped, or reached water; even in the event of any being unable to keep up, I warned them that I should not wait for them, but still pursue a steady and undeviating course until water was found;

but, as soon as I had slaked my own thirst, I would return and bring assistance to those who might have been unable to come on with me.

Having thus imparted my intentions, I ordered them to throw away every superfluous article; and a very valuable sextant, which had hitherto been carried turn about by Corporals Auger and Coles, was here abandoned. These our preparations having been made, we moved slowly on in sad procession, and never shall I forget the wild and haggard looks of those that followed me; reason had begun to hold but a very slight influence over some, and I feel assured, that had it not been for the force of that discipline which I rigidly maintained, some of the party must now have lost their lives. As it was, not a word of complaint was heard as to the plan I pursued or the route I took; but they all reeled and staggered after me, the silence being only broken by groans and exclamations. I preserved a slow uniform pace, proceeding still in a S. by E. direction, that is, in a straight line for Perth. The same sandy sterile country was around, thinly clothed with Banksia trees.

We had marched for about an hour and a quarter, and in this time had only made two miles, when we suddenly arrived upon the edge of a dried-up bed of a sedgy swamp, which lay in the centre of a small plain, where we saw the footmark of a native imprinted on the sand, and again our hearts beat with hope, for this sign appeared to announce that we were once more entering the regions

of animal life. We soon found that another part of the swamp was thickly marked with the footsteps of women and children; and as no water-baskets were scattered about, no doubt could exist but that we were in the vicinity of water. We soon discovered several native wells dug in the bed of the swamp; but these were all dry, and I began again to fear that I was disappointed, when Kaiber suddenly started up from a thick bed of reeds, and made me a sign which was unobserved by the others, as was evidently his intention. I hurried up, and found him with his head buried in a small hole of moist mud,—for I can call it nothing else. I very deliberately raised Kaiber by the hair, as all expostulations to him were useless, and then called up the others.

Kaiber had completely swelled himself out with this thick muddy liquid, and from the mark upon the sides of the hole, had evidently consumed more than half of the total supply. I first of all took some of this moist mud in my mouth, but finding a difficulty in swallowing it, as it was so thick, I strained a portion through a handkerchief. We had thirsted, with an intense and burning thirst, for three days and two nights, during the greater portion of which time we had been taking violent exercise under a fierce sun. To conceive the delight of the men when they arrived at this little hole of mud, would be difficult. Each, as he came up and cast his wearied limbs on the ground beside the hole, uttered these words,—"Thank God;"

and then greedily swallowed a few mouthfuls of the liquid mud, protesting that it was the most delicious water, and had a peculiar flavour, which rendered it far superior to any other he had ever tasted.

But it required some time before their faculties were sufficiently recovered to allow them duly to estimate the magnitude of the danger they had escaped. The small portion of muddy water in the hole was soon finished, and then by scraping it out clean we found that water began slowly to trickle into it again. The men now laid themselves down, almost in a state of stupefaction, and rested by their treasured pool. I felt, however, that great calls upon my energies might still arise, and therefore, retiring a little apart with the native, I first of all returned hearty thanks to my Maker for the dangers and sufferings he had thus brought me through, and then tottered on with my gun, in search of food. As might have been expected, game was here plentiful: numerous pigeons and other birds came down at nightfall (which was now the hour) for the purpose of drinking at this lone pool, and the numbers of birds, of different kinds, that congregated here, was a most convincing proof of the general aridity of this part of the country,—indeed the natives subsequently reported that the tract we had just traversed was, at this season of the year, totally devoid of water. It was in vain now that I raised the gun, for my tremulous hand shook so that I could not for a moment cover the bird I aimed at, and after one or two ineffectual

attempts to kill something, I was obliged to desist in despair. I now dreaded that I had only escaped the pains of death by thirst, in order to perish of hunger, and for a moment regretted that I had not died ere I found water,—for I firmly believed, from the state of weakness I was then reduced to, that the bitterness of death had passed. But a short period sufficed to smother these unmanly and unchristian feelings in my breast, and seeing a flight of black cockatoos soaring about in the air, I determined to watch them to their roosting-place, and then favoured by the darkness of night to steal upon them. On my return to the party, I found the men sitting by the hole of water, anxiously watching until they again saw a little black mud in it, which they then eagerly swallowed.

I found some difficulty in inducing them to light their fire, and to choose a situation where they could repose for the night, but having accomplished this, I sat down by my own, hand-rubbing my limbs until it should grow rather darker. At length I had the pleasure of seeing that the black cockatoos, who found we were not likely to leave them in possession of the water, had taken up their position for the night in a large clump of trees, distant not more than half a mile, and I hereupon started with Kaiber to try and get a shot at them.

After about an hour's wandering and excitement, such only as the desperate gambler can know, whose life depends upon the stake for which he plays, I

succeeded in getting a shot into a whole flight of roosting and snoring black cockatoos, and one fell. I pounced in triumph on it, and received a bite, which, famishing as I was, somewhat damped my ardour; Kaiber, however, hit it upon the head with a stick, and we then bore it off to our fire.

The men had cooked one spoonful of flour each, in the liquid mud which the pool afforded, and assured me that they found this thick water very nourishing; whence I concluded that the large portion of mud it contained in some degree gratified the cravings of the stomach. Kaiber soon plucked the cockatoo, and roasted it: I gave him the entrails, the feet, and the first joint of the legs, eating the head and thighs myself, and reserving the other portions as a store against future emergencies. I now felt assured that my life was saved, and rendering thanks to God for his many mercies, I laid down by the fire to watch for the first appearance of dawn.

April 18.—The men slept but little during the night: every now and then one of them visited the hole of mud and water, to see if a little of this fluid had drained into it, and about an hour before daylight I roused them up to proceed upon their journey. They were dreadfully feeble, though upon the whole stronger than they had been for the last three days. We now entered upon a more hilly country than we had traversed yesterday; the hills were steep, being composed of sand and recent limestone, whilst the valleys were thickly wooded with grass trees and stunted Banksias. The general

line of route I followed was s. by E., and we had not travelled more than nine miles when we came suddenly upon a valley, with a river running rapidly through it. The sight of this cheered us up; and when on tasting the water we found it excellent, and saw adhering to the banks a species of fresh-water muscle, (*Unio,*) called by the natives *Ma-rayl-ya,* our joy was complete.

I proceeded therefore to collect wood for my fire, and ordered Kaiber to make haste and gather some of these muscles, an order which, considering the hungry state he was in, I imagined he would gladly have obeyed; but to my astonishment he refused positively to touch one of them, and evidently regarded them with a superstitious dread and abhorrence. My arguments to induce him to move were all thrown away; he constantly affirmed that if he touched these shell-fish, through their agency the "Boyl-yas"* would acquire some mysterious influence over him, which would end in his death. He could not state a recent instance of any ill effects having happened from handling or catching the muscle; but when I taunted him with this, he very shrewdly replied, that his inability to do so only arose from the fact of nobody being "wooden-headed enough" to meddle with them, and that he intended to have nothing whatever to do with them. This much he assured me was certain: that a very very long time ago, some natives had eaten them, and that bad spirits had immediately killed them for so doing.

Kaiber was a great deal too sensible a fellow to

* The Boyl-ya is the native sorcerer.

be allowed to remain a prey to so ridiculous a superstition as this was; I therefore ordered him instantly to go and bring some of these muscles to me; that I intended to eat them, but that he could in this respect please himself. He hereupon, after thinking for a moment or two, got up to obey me, and walked away for this purpose; but I heard him, whilst occupied in the task, lamenting his fate most bitterly. It was true, he said, that he had not died either of hunger or thirst, but this was all owing to his courage and strong sinews, yet what would these avail against the supernatural powers of the boyl-yas. "They will eat me at night, whilst, worn out by fatigue, I must sleep." Amidst these and sundry other similar exclamations, he brought the muscles to me: by this time my fire was prepared, and in a few minutes I was making such a meal as the weak state of my stomach would admit of. No inducement of mine could, however, prevail upon Kaiber to share with me, and I therefore handed him the remains of the cockatoo.

As soon as my repast was concluded, I walked about three miles up the river, in the hopes of getting a duck, Kaiber accompanying me. We saw several, but killed none. There were some fine reaches in the river, as well as some good flats along its banks.

In the afternoon we travelled about three miles in a S. by E. direction, and then came to the bed of a small stream, which ran from east to west, but was now merely a chain of pools. Across the bed, where we passed it, was a native weir. Our route

during the whole evening lay over hills of a nature similar to those we passed yesterday. We did not halt until it was so dark that we could not see to walk, and then just dropped at the spot where we ceased to move. The men made their fire, and I lighted mine from theirs; but scarcely was this done ere the rain fell in torrents. I had no blankets or protection of any kind against this, and Kaiber was in the same predicament; so that when the fire was extinguished, our position became pitiable in the extreme, for I know not if I ever before suffered so much from cold; and to add to my annoyance, I every now and then heard Kaiber chattering to himself, under its effects, rather than singing,—

"Oh wherefore did he eat the muscles?
Now the boyl-yas storms and thunder make;
Oh wherefore would he eat the muscles?"

At last I so completely lost my temper, that I roared out, "You stone-headed fellow, Kaiber, if you talk of muscles again, I'll beat you." "What spoke I this morning?" replied Kaiber; "you are stone-headed. We shall be dead directly; wherefore eat you the muscles?" This was beyond what my patience in my present starved state could endure, so I got up and began to grope about for a stick or something to throw in the direction of the chattering blockhead; but he begged me to remain quiet, promising faithfully to make no more mention of the muscles. I therefore squatted down, in a state of the most abject wretchedness.

I nearly expired from cold and pain during this inclement night; the rheumatism in the hip in which I had been wounded was dreadful, and I lost the power of moving my extremities from cold. Kaiber must have suffered even more, for he had nothing but a shirt on, whereas I had also a pair of trousers. The men were in somewhat better condition, for they had a blanket, or rather a piece of one, between each two, and lying together they afforded one another mutual warmth. The long starvation which we had undergone had totally unfitted us all to cope with anything like cold.

April 19.—The rain and clouds protracted the morning dawn until late, which somewhat lengthened our miseries. As soon, however, as it was light enough to see our way we started, and moved slowly onwards in a S. by E. direction. The men were all completely crippled from the cold of the night, and it was with the greatest difficulty I could get either them or the native to move. My own energies were, however, only raised from these calls upon them, and I cheered them on as well as I could. Corporal Coles, my faithful and tried companion in all my wanderings, could scarcely crawl along. The flesh was completely torn away from one of his heels, and the irritation caused by this had produced a large swelling in the groin. Nothing but his own strong fortitude, aided by the encouragement given him by myself and his comrades, could have made him move under his great agony.

Still, however, we advanced slowly; other lives

depended on our exertions; and whenever I reminded the men of this, for a minute or two they quickened their pace. Pale, wasted, and weak, we still crawled onwards in the straight line for Perth, which I assured them they would reach on Saturday night or Sunday morning. About two hours and a half after starting we crossed the southern branch of the Moore River, which was running strong; but the rain, which had only just ceased, prevented our being thirsty.

The whole of this day's route lay over hills similar to those we had found yesterday. We moved on, occasionally halting for a few minutes, until it was so dark we could no longer see, and then laid down, having again this day tasted no food.

It rained hard all night, and our miseries of the last one were repeated. We were also less able to bear them, being weaker from longer abstinence. —This day we travelled about one and twenty miles.

April 20.—This morning we rose again, weak and stiffened from the cold and wet; life had long ceased to have any charms for me, and I fancy that the others must have experienced a similar feeling. A disinclination to move pervaded the whole, and I had much the same desire to sink into the sleep of death, that one feels to take a second slumber of a morning after great fatigue. My life was not worth the magnitude of the effort that it cost me to move; but other lives depended on mine, so I rose up weak and giddy, and by degrees induced the rest to start also. Poor Coles, however, was in a dreadful state.

The country through which we were travelling is intersected by a long line of lakes, which run nearly parallel to the sea for a distance of about forty-five miles. One of the party had travelled in the same direction with me before, but we had then kept along the edge of the lakes. He had imagined, however, that they were only two or three miles distant from the sea, whereas many of them were as much as eight or ten. The route we were pursuing was about midway between the lakes and the sea, and this man seeing nothing of the lakes, could not be convinced that I was right in the position I said we then were; for I assured the men they were not more than twenty-seven or twenty-eight miles to the north of Perth; but I heard him relating his doubts, which tended to discourage the others very much.

We, however, walked on as well as we could until near noon, at which time, from excessive weakness, we had not made more than eight miles, or about a mile and a quarter an hour, when we suddenly came out on the bed of a dried up swamp, now looking like a desert of white sand studded with reeds. The forms of natives were seen wandering about this, one mile from us, who were searching for frogs. There was a very numerous party, and they did not appear at all inclined to approach us. Now it was very evident that if we were so near Perth as I imagined, these natives must be well acquainted with Europeans; for although but very little was known of the country to the north of Perth, and the farthest settlement in that direction was only four miles from the town,

still the natives must, from mere curiosity, have been frequently in the settlement.

We therefore approached them, but as we came near they withdrew. Kaiber was now called into consultation; he scrutinised them long and carefully, and then announced that they were "mondak yoongar," wild natives; and, after a second survey of them, declared that they had the "mondak kurrang kombar," or great bush fury, on them, or rather, were subject to wild untutored rage. After making this announcement he squatted down under a bush to conceal himself, and then recapitulating rapidly all the dangers we had gone through, conjured me not to bring him into a fresh scrape, by having anything to do with such a numerous party of his countrymen in our present weak state.

The men, who understood enough of what he was saying to know that he thought these natives had never seen Europeans, became extremely uneasy, and begged me to allow them to fire a gun as a signal to them: "For if we are so near Perth as you suppose, Sir," they said to me, "these natives will come to us." Kaiber hereupon told me, that the instant the gun was fired he should run away. This was rather too ridiculous a threat, when the coward was afraid to move five yards from us; I, therefore, ordered a gun to be fired, and then telling the men to remain steady and prepared in case of accident, I walked off towards the natives, Kaiber, in the meanwhile, sitting on his haunches under cover, muttering to himself, "The swan,—the big head,—

the stone forehead;"—and as these denunciations reached me, I could not, even in all my misery, forbear smiling at them.

The natives no sooner heard the gun, and saw me approaching, than they came running to me. Presently Kaiber called out to me, "Mr. Grey, Mr. Grey, nadjoo watto,—nginnee yalga nginnow,"—"Mr. Grey, Mr. Grey, I am going to them; you sit here a little;"—and he then, with his long thin ungainly legs, bounded by me like a deer. "Imbat, friend," I heard him cry out, as a young man came running up to him. I grew giddy; I knew Imbat by name, and felt assured that at all events the lives of a great portion of my party were safe. In a few minutes Kaiber had given an outline of our adventures, and present state. Fearing such mischances as had really happened to me, I had, previously to my departure to the north, done my utmost to cultivate the friendship of the northern natives; and most of them, even to the distance of sixty or seventy miles from Perth in that direction, had received presents from me. My name was well known amongst them as a tried friend, although indeed my common denomination was "Wokeley brudder," or Oakley's brother; for, from my giving them flour, they concluded that I was a relation of the baker of that name at Perth.

The women were soon called up, bark baskets of frogs opened for us, by-yu nuts roasted, and as a special delicacy, I obtained a small fresh-water tortoise. "Now, friend, sleep whilst I cook," said

Imbat, and lighting a fire he made me lie down and try to slumber, whilst he roasted some frogs, and the turtle for me. I was not over well pleased at the skill he chose to exhibit in his cookery, for he thereby delayed me for a longer time than was agreeable—but we were all soon regaling on this native fare.

Anxious questions were put by the men, as to their distance from Perth, and the natives all told them they would see it the next morning, "whilst the sun was still small;" and on further enquiry, it turned out that a kangaroo hunter of the name of Porley, was at a hut distant only seven miles from us, and according to the account of the natives he had a supply of provisions with him. As soon, therefore, as I had a little recruited my strength, I started on with Imbat, to the hut, leaving the men to follow, in company with the other natives, as rapidly as their strength would allow them. Imbat carried my gun, and everything but a book or two, and my papers, which, being precious documents, I had never trusted out of my own possession, however heavy my labours and misfortunes had been. He moved merrily along, trying to win me from my moody thoughts, by relating all the news of the settlement, both as concerned the Europeans and natives; for, like all other idle people, the natives are great gossips, and really love a little scandal. Worn out from fatigue, I was rather petulant and ill-tempered, but Imbat talked on un-

mindful of this, or only laughed at me, and jeered me for it.

My intentions in going on were to have everything prepared for the men, on their arrival at the hut; but, when I reached it, I found it deserted, the owner having returned to Perth. I however lit a fire, and laid down, Imbat again beginning to cook—and then chattering: "What for do you who have plenty to eat, and much money, walk so far away in the bush?" I felt amazingly annoyed at this question, and therefore did not answer him. "You are thin," said he, "your shanks are long, your belly is small—you had plenty to eat at home, why did you not stop there?" I was vexed at his personalities, besides which it is impossible to make a native understand our love of travel—I therefore replied—"Imbat, you comprehend nothing—you know nothing."—"I know nothing!" answered he; "I know how to keep myself fat; the young women look at me and say, Imbat is very handsome, he is fat—they will look at you and say, He not good—long legs—what do you know? where is your fat? what for do you know so much, if you can't keep fat? I know how to stay at home, and not to walk too far in the bush—where is your fat?" "You know how to talk;—long tongue;" was my reply; upon which Imbat, forgetting his anger, burst into a roar of laughter, and saying, "and I know how to make you fat,"—began stuffing me with frogs, barde, and by-yu nuts.

The rest of the party arrived just before night-fall, and, searching the hut, found a paper of tea, and an old tin pot, in which they cooked some, and then eating frogs, &c. for their supper, we all laid down to sleep—and in the silence of the night, I rendered fervent thanks to my Maker, who had again brought us so near "the haven where we would be."

April 21.—It had rained all night, but we had been a little sheltered by the hut; though from the state of anxiety we were in, sleep did not visit our eyes. This was the first time, since I had been out, that I had slept so near the men as to be able to overhear their conversation; but the rain forced us all to seek the shelter of the same little hut, and I thus gathered the different stories that they narrated to one another. Their speculations and conjectures naturally ran upon our absent comrades; some imagined that they were within a day or two's march of us, but another party held firmly to the opinion that we should never see them more.

They could give no apparently satisfactory reason for holding this opinion, and as there was evidently some deep mystery connected with it, I kept on pressing my servant Coles, in order to induce him to tell me whence it arose—at last it came out, that Mr. Walker had had a dream, when we were on the shores of Sharks Bay, and before we had commenced our return home, that some dreadful misfortune had befallen us, and that Mr. Smith,

Thomas Ruston, and he himself, were endeavouring to make the Isle of France in a boat, when Mr. Smith died, and the remaining two had eaten his body. Mr. Walker had, with the utmost imprudence, related this dream to some of the men, and they, with that superstition, which is so common amongst sailors, and Englishmen of the lower orders, had attached a great degree of importance to it; many circumstances which had hitherto been unexplained to me now flashed upon my mind; poor Mr. Smith had been very ill at the time Mr. Walker had related this inauspicious dream, and at that period an extraordinary degree of despondency had crept over him, so much so, that some of the men imagined he had become deranged—when also we were working our way down the eastern coast of Sharks Bay, in the boats, others of the party had got into a very desponding state, one of whom, Henry Woods, had even gone so far, as to tell me, when I remonstrated with him on this point, that he knew that the greater part of us were doomed, and that our lives were worth nothing.

My anxiety for those I had left behind me now increased, and about an hour and a half before daylight, I started for Perth with Imbat, leaving the others to follow as rapidly as they could, and telling them that I would have food ready for them at Williams's cottage, who was the settler living farthest north from Perth. In about an hour and a half I reached Williams's hut—which I entered, and found his wife and another woman at breakfast.—

I had often got a drink of milk at this cottage, when I had before been at Perth, and I flattered myself that Mrs. Williams would recollect me; little calculating how strangely want and suffering had changed my appearance. The two women only stared with the utmost surprise, and said, "Why, Magic, what's the matter with you?" (They alluded to a crazy Malay, who used to visit the out-settler's houses, and who had somehow or the other acquired the nick-name of Magic.)—I was rather hurt at my reception, and said, "I am not Magic;" at this they both burst into a roar of laughter, and Mrs. Williams said, "Well, then, my good man, who are you?" "One who is almost starved," was my reply. "Will you take this then," said my hostess, handing me a cup of tea she was raising to her lips. "With all my heart and soul, and God reward you for it," was my answer,—and I swallowed the delicious draught. Imbat, who had been to search for Williams, now came in, and explained who I was; in a few minutes more, I was seated at a comfortable breakfast; water was put on to boil, and by the time the things were prepared, the rest of the party came up.

I now washed, and made myself as clean as possible. I could obtain no conveyance to take us on to Perth, and therefore started to walk in with Imbat, leaving the others to complete their breakfast; but I soon found myself dreadfully ill, from having eaten too profusely; still I pushed on as well as I could, and in about an hour and a half,

reached the house of my friend, L. Samson, Esqre. He could not believe it was me whom he beheld, but having convinced himself of the fact, he made me swallow about a tea-spoonful of brandy, and, recruited by this, I was sufficiently recovered to wait upon His Excellency the Governor, in order to have immediate steps taken to send off a party in search of my missing comrades.

The Governor could scarcely credit his sight, when he beheld the miserable object that stood before him; but in this as in all other instances in which I have known him, the goodness of his heart shone conspicuous; not only was every kindness shewn me, but immediate steps were taken to forward assistance to those who were still in the bush. Having thus far performed my duty, I retired to press a bed once more, having for nearly three consecutive months slept in the open air, on the ground, just at the spot where my day's hardship had terminated. So changed was I, that those of my friends, who had heard of my arrival and were coming to congratulate me, passed me in the street, whilst others to whom I went up, and held out my hand, drew back in horror, and said, "I beg your pardon, who are you?"

Ere I was in bed, the remainder of the men who were journeying with me arrived,—and it had thus pleased Providence to conduct six of us, through great suffering and want, to the termination of our miseries.

CHAPTER V.

FROM WATER PEAK TO PERTH.

(MR. WALKER'S PARTY.)

PARTY SENT IN SEARCH FROM PERTH—RETURN WITH CHARLES WOODS—SECOND PARTY IN SEARCH, UNDER MR. ROE—ARRIVAL OF MR. WALKER AT PERTH—NARRATIVE OF THEIR PROCEEDINGS FROM WATER PEAK—EXTREME DISTRESS FROM HUNGER AND THIRST—DEATH OF MR. SMITH—TIMELY DISCOVERY OF THE REST BY MR. ROE—MR. ROE'S REPORT.

I ARRIVED at Perth on the 21st of April, and not a moment was lost in preparing a party to go in search of the men I had left with Mr. Walker, and who, it will be recollected, were instructed to proceed along the coast until they made the Moore River, where assistance was to be sent out to them from Perth. Accordingly, on the 23rd of April, Lieutenant Mortimer, of the 21st regiment, and Mr. Spofforth, with four soldiers, left Perth, and arrived on the Moore River in two days; but after traversing its banks in vain for two days more, they abandoned all hope of finding those they were in search of there, and pursued a straight course about 25 miles further north, when they

fell in with another river, where they formed a depot, and detours were made in various directions for several days without any avail. At length, on one of these excursions, the seaman, Charles Woods, one of my party, was found by Mr. Spofforth, lying on the beach, wrapped in his blanket, and fast asleep. He soon awoke, and was not a little delighted to recognise Mr. Spofforth, whom he had seen before at Freemantle. By the account Woods gave, it appears that from the period of my departure much disorder and discontent at the direction of their course prevailed among the men. They frequently left the beach and wandered inland to procure water and food, not sufficiently exerting themselves to advance southward. They had succeeded, he said, in procuring upon the whole about a dozen birds, a crab, and eighteen fish. On the 21st of April, Mr. Walker, who had frequently exerted himself in procuring firewood and water for the weaker of the party, divided two dough cakes still remaining in his possession among them all. They were then upon the beach, and though still at a great distance from the appointed place of rendezvous, the men were very unwilling to distress themselves to reach it, being persuaded they should be tracked, wherever they might be, by the natives whom I should send to their help. Woods being dissatisfied with their slow progress, now quitted them at a place where, he says, they had to go round two very deep bays close together, which took him a whole day;

and it was owing to his having obeyed my instructions more strictly than the others, that he was found by Mr. Spofforth. Woods, who seemed to have a singularly accurate idea of the distance he was from Perth when found, added, that he thought he could have walked to it had he not been discovered, although he had nothing to eat but a few native figs; and that he thought the whole of the party were getting more accustomed to native food, and were latterly better than they had been at first; he said he felt so himself.

Lieutenant Mortimer's party having made every exertion, but in vain, to find the five remaining persons, were compelled, at the end of a fortnight, by want of provisions, to return to Perth, where they arrived on the 6th of May; and early the next morning the Surveyor-General, Mr. Roe, accompanied by Mr. Spofforth, (who again volunteered his services), four men, and two native youths, with five horses, set out in search of those still missing.

On the 9th of May, two days after the departure of Mr. Roe's party, Mr. Walker came into Perth alone, and from his statement, together with what was gleaned subsequently from the other men, I shall here briefly narrate what befel them after my departure on the 10th of April. On the next day they started at dawn, and soon came to a great deal of scrub; this was the belt of thick wood mentioned in my journal. Mr. Walker says, the men

being disheartened at this they went down to the beach and halted about a mile from it; Water Peak Hill being distant about fifteen miles. Woods said, much discontent was caused amongst the men by its being conceived that they were following a bad course; or, according to Ruston's expression, that "the steering was very bad."

April 12.—They found a river with pools of water in coarse gravel, in which they caught here two small fish, and travelled six miles through the scrub along a native path.

April 13.—They started and went down towards the beach. The men cut and cooked some greens, but found no water. Travelled twelve or fourteen miles along the beach.

Sunday, April 14.—They shot a pigeon, two red-bills, and a hawk. In the afternoon it rained, and they travelled along the beach and got some cockles, and found a fine stream of water running out from under the rocks. They then got under the scrub to keep the rain off, having made about eight miles.

April 15.—They again came out on the beach, and kept along it. Good travelling. Made a march of nearly twenty miles.

April 16.—They continued on the beach till they came to a good place for fishing, and caught eighteen. Mr. Walker shot a bird. After eating the fish, they were all very thirsty.

April 17.—Went into the interior about mid-day, and found a native well, six miles inland; also

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a large cave in the rocks. The party here procured and eat some Zamia nuts.

April 18.—They were all sick from the nuts, and turned back to the beach, about four miles, but did not reach it.

April 19.—This morning they reached the beach, and travelled on until they came to some high rocks, from whence they saw an immense tract of sand. Again this evening they went into the interior to find water. Boiled some young trees and eat them.

April 20.—They were travelling into the interior along the steep banks of a river running nearly east. Got plenty of green stuff to eat. They had now two guns, and the means of getting fire, but the powder and shot was nearly expended. The axe I left with them had been lost soon after.

April 21.—Woods left the others to proceed alone.

April 22.—Being the day after Woods left, they went into the interior about six miles from the coast, and there found a river, which Mr. Walker and Mr. Smith thought was the Kar-pan (the Moore). This river was standing in pools, and there was a great rush of water from the hills; they traced the bed up for two or three miles, where it came out from some very high hills, when Mr. Smith said he was certain that it was not the Kar-pan. They then made a s. by w. course, and thought where they came out was 12 miles below where Woods left them; and that the river was nearly half-way between these two points.

They now again turned into the interior, being, as they thought, at the bay to the south of Jurieu Bay.

April 23.—They returned and kept along the beach, made about fifteen miles, when they halted close to it.

April 24.—They went on for five or six miles, then halted, and made a fire with the end of a spar.

April 25.—They travelled two or three hundred yards. Mr. Walker went back for the end of the spar, and Mr. Smith cut some firewood. There they halted, catching fish and crabs.

April 26 and 27.—Still halted at this spot, fishing, and caught parrot-fish, rock-cod, &c.; so that they had as much fish as they could use, and found fresh water in the holes of the rocks.

April 28.—They started at dawn, and went on for a mile. Ruston was taken ill from the number of crabs he had eaten, and Mr. Walker stopped with him, whilst the other three went on a mile a-head, and got fish and periwinkles. Mr. Smith, Stiles, and Clotworthy had a little water left; Ruston and Mr. Walker had canteens half-full. Ruston got better in the evening, but they did not proceed until the next morning.

April 29.—Mr. Walker moved on with Ruston about a mile, and there found Mr. Smith clambering up some rocks, and having plenty of periwinkles, of which he gave them some. Clotworthy had stopped up all night, and had picked up enough for four or five days. At night, at low tide, they got nearly fresh water, running out from under the rocks.

April 30.—They still halted, living on the periwinkles; but this evening, the water was more salt.

May 1.—This day the party separated into two portions, and did not meet again until the 2nd, on which day Mr. Walker left them by agreement, he being the strongest of the party. His object was to proceed as expeditiously as he could to Freemantle, and send from thence a boat and fresh water for the relief of the rest. The party he left behind having agreed to keep a constant look out on the beach, and hoist concerted signals.

For two days after Mr. Walker left them, it appears they wandered about to look for water, and then fished. They fortunately fell in with a cask of water, washed up on the beach, from which they filled their canteens, roasted the fish and started on again, but made no distance. This lasted for several days. They subsisted by picking up a few shell-fish and some dead birds which had been washed ashore, and they ate a sort of cane, that grows near the beach, and the Hottentot fig. Mr. Smith now gradually became exhausted, and, at last, one evening sat down on a bank, and said he could not go on. He was behind the party with Ruston, who thought he was dying, and went on and told the other men. The next morning Ruston went back to try and find where Mr. Smith was, but was so weak that (as he thought) he did not go far enough, and did not find him. Mr. Smith seems to have crawled up into the bush, a little on one side of their route, and there died. Four days after, the rest were picked up by Mr. Roe's party, whose proceedings I shall now relate from his own interesting report;

premising that the men had then been three days without water and four days without food, and had nothing to eat but the sweet cane that grows near the beach.

Mr. Roe says, "Leaving Perth early on the 8th inst. accompanied by Mr. E. Spofforth and four men, with the native youths Warrup and Wyip, and five horses, we travelled in a N. by W direction, along a chain of beautiful lakes, from three to ten miles apart, and surrounded by good soil and grass to a short distance; and, in the middle of the third day, reached Neergábby, on the Garban River, about 52 miles distant. Giving our horses an hour's rest, I rode forward twelve miles with Mr. Spofforth and Warrup to the mouth of the river, where we hoped to find some traces of the absentees; but to our disappointment and regret, not a footmark was to be seen on the sand except those of Woods, and the written directions which had been placed conspicuously on sticks so as to intercept the track of the wanderers were either untouched or washed down by the high tides. Replacing these with full instructions how to proceed, we returned to our camp at Neergábby, where we were joined by some natives of the district, from whom, however, no information whatever could be obtained respecting the objects of our search. Inferring from these circumstances that they could not yet have reached so far south, and that they might probably have quitted the beach for the purpose of seeking fresh water inland, we lost no time in pushing on to the

northward, and at sunset of the 11th took up our bivouac at Barrumbur, on the Moore River, seventeen miles in advance, where excellent water was found in deep pools, and our horses revelled in luxuriant pasturage. Between the two rivers there is a great extent of level country, so much under water in wet weather as to be then totally impassable with horses or carts, and the beds of the rivers (near which there is generally good cattle feed) assume the form of deep sandy pools, a few yards apart, and grooved to the depth of 25 or 30 feet below the level of the banks.

"Being desirous of penetrating the country further to the north, before we again visited the beach, which was computed to be about fifteen miles distant, with no water or feed for our horses in the intermediate space, we buried half our provisions, &c. in a hole beneath our temporary shelter, which was then fired, in order to lull the suspicion of the natives; and our sable companions having secreted the pannier-baskets and pack-saddles among the adjoining bushes in such a way as to defy discovery, we trusted to Providence for the result, and next morning resumed our northern route. Leaving the extensive shallow lakes of Gárbanup, at this time quite dry, about two miles on our left, we traversed a more hilly and dry sandy district than before, and had an elevated mountainous country fifteen or twenty miles to the eastward. We had now entered upon the inhospitable tract in which Mr. Grey and his party had

been so much distressed for water on the homeward journey, and their feet-marks were distinctly recognised by our natives around a swampy space in search of some. At the end of sixteen miles we reached Nówergup, a small rushy lake, at this time quite dry and dusty at the surface, but having at its north end a small well, seven feet deep, containing about a gallon of stinking water. Although this proved very palatable after a dry day's journey, it was by no means adapted to the wants of five horses, and we gladly accepted the services of one of the natives of the district to conduct us to a larger quantity. Our way to it led over a mile and a quarter of nearly level country, entirely under water in winter, and covered with rushes and tea-trees. At the lowest level was a well with abundance of water two feet below the surface, near which we immediately took up our quarters, and learnt that the spot was called by them Bookernyup. We were also given to understand that the country to the northward and westward was, at this time of the year, entirely without water, and that none was to be found nearer than a river "far away" in the N.E.

"This account by no means lessened our fears for the poor fellows of whom we were in search, and led us to determine on leaving the party here, and making a forced march of two or three days to the N.W. with the smallest possible supplies, in the hope of reaching the spot where the absentees had been left by Woods, and which we supposed to be the vicinity of Jurieu Bay. Previous, however, to put-

ting this plan into execution, it was considered advisable to visit the beach again, fifteen or sixteen miles distant,—on doing which next morning, with Mr. Spofforth and Warrup, we had the satisfaction to find the feet-marks of five men on the sand, taking a southerly direction. Warrup having pronounced them to be without doubt the footsteps of white men, and not more than two or three days old, we followed them eagerly along the shore for a mile, and then came to an empty cask that had been washed on shore, together with several broken bottles and a stone jar. On further examination, part of the head of the cask was found much cut with a knife, as if used for a plate, and near the extinct embers of a small fire lay the bones of a fish, which Warrup concluded had been picked on the morning of the previous day. Rejoiced at having now got upon the right track, and being unwilling to lose time by following it up from this spot, we took a good look round, and returned to our camp at Bookernyup by sunset, from whence we next morning started early in a southerly direction, took up safely everything we had concealed on the Moore River, and shortly after dark had completed 24 miles to a place called Kádjelup, where we halted on some deep pools similar to those at Bárrumbur.

"Breakfasting early on the 15th, the baggage was despatched forward to Neergábby, and at daybreak Mr. Spofforth, Kinchela, (a private of the 21st regiment,) and Warrup accompanied me on horse-

back to the beach, which we found eleven miles off, but to our great disappointment a very high tide had totally obliterated all marks from the sand, and left us in perplexity and doubt. Concluding, however, that the missing party must be in advance of us, and that they could not fail to observe the papers which had been offered to their notice at the mouth of the Garban River, we turned our steps that way ;—left a paper of directions in the event of their being behind us, and carefully examined both beach and sand-hills, as well as the country immediately in rear of them. Twelve miles brought us to the mouth of the river, and there we found everything as we had placed it,—not a mark near the beach, except the footsteps of the native dog prowling about the sand-hills, and nothing which could lead to a belief that the spot had been visited since we last left it. Somewhat disappointed, although rejoicing in having now hemmed the unfortunate absentees up into a narrow limit, within which we knew they *must* be wandering towards Perth, we joined our party at Neergabby shortly after dark, and observed on our way the traces of five natives, who were confidently said by Warrup to be Perth natives, sent to look after us with intelligence. They had come along the coast from the south as far as the mouth of the river, and had struck inland to the S.E. on their return. The conclusions of this intelligent lad on the occasion were afterwards found to be strictly correct, even to the names of the men who composed the party.

"The early morning of the 16th found us all in busy preparation for the day's proceedings, and relying with reasonable confidence on a successful issue to our exertions. The remainder of the party were sent back, with one horse, to Kádjelup, whilst my indefatigable companion Mr. Spofforth accompanied me, with Kinchela and the two natives and four horses, to resume our examination of the beach to the north. Fifteen miles in a N.W. direction brought us to the desired spot, but still no sign was apparent of its having been visited by any human being since ourselves; we however commenced a close examination to the northward, and at the end of a mile and a half had the infinite satisfaction of falling in with three of the missing party, in the persons of Ruston, Stiles, and Clotworthy, who had formed a portion of the wrecked boats' crews. The state of distress and exhaustion in which they were found on the beach was truly pitiable and moving. With scarcely strength to drag one foot after the other, they had marched about a mile and a half that morning, until they encountered the bold rocky projection of land at which we discovered them, and the passing of which they had given up as utterly hopeless, from want of sufficient strength to climb over it. Having been three days without water, except their own and the sea-water, the former of which they had saved in their canteens, and emptied out before us, and their only food being such nourishment as they could obtain from chewing a coarse rushy plant which grew about high-water

mark, it cannot be matter of surprise that they were almost frantic after water, and that the portions of it which we sparingly administered to them, mixed with a little brandy, were most eagerly seized. Indeed the greatest firmness and forbearance were necessary on our part to prevent the unfortunate sufferers from committing fatal excesses. They declared their extremity to have been so great, that no chance had appeared to them of surviving the next awful night, or of getting a foot beyond their present position; and, to his credit be it said, one of them* had been on his knees only ten minutes before they were rescued, supplicating with uplifted hands that aid and assistance which had thus, through Divine Providence, been so opportunely afforded them.

"In answer to our anxious enquiries respecting Mr. Walker and Mr. Smith, we learnt that the former, being much the strongest of the party, had, at their request, made the best of his way towards Perth ten days since, in order to send them out assistance,—and that Mr. Smith, having been totally unable to proceed with them any further, had remained behind, in a dying state, four days ago. Touched by this distressing intelligence, and sensibly alive to the value of time, we lost not a moment in lifting our three light weights on our horses, and by supporting them in their seats, conveyed them over the sand-hills to the more level space behind, where sufficient brushwood was scattered about for

* Ruston.

maintaining a fire. Here Mr. Spofforth kindly undertook their charge, while I should proceed with Kinchela and Warrup in search of poor Smith.

"Ruston having expressed himself very anxious to accompany us, and fearing that we might not otherwise accomplish our object, after receiving some suitable refreshment, he was mounted, and we all set off at as quick a pace as he could manage. At the end of three miles, a good view of the coast to the northward was opened to us from the summit of a rising ground, and Ruston pointed out, at the distance of 24 miles, an island, near which he said young Smith had been left. As this was far beyond the six or seven miles of which they had at first spoken, and totally precluded the possibility of my returning that night with the water-kegs which I had taken to be filled at some wells which they had seen in the vicinity, I relinquished all idea of proceeding, while the sun was then touching the horizon, and we accordingly rejoined Mr. Spofforth and his charge. We were now perfectly satisfied of the wandering inconsistency in the conversation of the three rescued men, who were evidently to a considerable extent delirious or light-headed. Being too sore in body and excited in mind to admit much sleep to their assistance, they were full of their expressions of thankfulness for their timely deliverance, and at length terminated a long and weary night.

"The morrow's dawn found me on my way with Kinchela and Warrup, to search for poor Smith, while Mr. Spofforth proceeded with the three

rescued men and Wyip to join our party at Kádjelup, 12 miles off. At the distance of a mile and a half, we found the guns of Mr. Walker and Mr. Smith, which the men had buried among the sand-hills, from inability to carry them any further. A close scrutiny of the beach brought us, at the end of ten miles, to a spot where Warrup observed the traces of feet in the sand. Following them up, they ascended a bare sand-hill to the height of twelve or fourteen feet, turned short round to the left, and there terminated at the unfortunate object of our search, extended on his back, lifeless, in the midst of a thick bush, where he seemed to have laid himself down to sleep, half-enveloped in his blanket. The poor fellow's last bed appeared to have been selected by himself; and at the distance of three or four yards from him lay all the trifling articles which had constituted his travelling equipage. These were his wooden canteen, his brown felt hat, and haversack, containing his journal, shoes, tinder, steel, gun-screw, a few small canvass bags, which he had used for carrying shell-fish, and a small bag, with thread, needles, and buttons. Life seemed to have been extinct rather more than two days; and from the position of the head, which had fallen considerably below the level of the body, we were led to conclude that a rush of blood into the brain had caused his death, and at last without much suffering. With the help of the soldier and Warrup, we made a grave with our hands, and buried poor Smith deep in a sand-hill near the

shore, about seventy-six miles to the north of Swan River. Even Warrup, notwithstanding the general apathy of the native character, wept like a child over the untimely fate of this young man, from whom he had formerly received kindness. Smoothing over his solitary bed, and placing at the head of his grave a piece of wood found upon the beach, we pursued our melancholy way half a mile to the northward, where we found the water to which we had been directed, by digging 12 inches in the sand, at the commencement of a considerable sheet of bare sand, extending, at least, four miles into the interior. In the course of the evening we rejoined our party on the Moore River. Next day we halted at Kádjelup; and on the 19th we separated at Neergábby once more,—Mr. Spofforth to conduct the remainder of the party home with as much celerity as they could travel, whilst I proceeded with Kinchela and Warrup to examine the coast from the mouth of the Moore River for any traces of Mr. Walker, of whose fate we were in total ignorance. By noon of the 22nd we had arrived within 12 miles of Perth, without remarking the least trace of the supposed absentee, when we were met by Mr. Hunt the constable, with the pleasing intelligence that Mr. Walker had reached Perth on the 9th instant. In the evening we arrived at the same place, and found that Mr. Spofforth had brought in his charge the day before."

If Mr. Roe's party had been delayed only a few hours, there is every probability that from the debi-

litated state in which the men were found they would all have perished.

I deeply regretted the death of poor Frederic Smith, who had come out from England expressly for the purpose of joining me, led solely by the spirit of enterprise, and not with any view of settling. He was the most youthful of the party, being only 18 years of age, and thence was less capable than the others of bearing up against long continued want and fatigue, and the excessive heat of the climate, under which he gradually wasted away, until death terminated his sufferings. When aroused by danger, or stimulated by a sense of duty, he was as bold as a lion, whilst his manner to me was ever gentleness itself, as indeed it was to all.*

Upon the final return of the expedition, a desire was expressed by some gentlemen of the colony of Western Australia, to remove Mr. Smith's remains to Perth; but upon mature reflection, I declined their friendly proposal, preferring rather to let him rest close by the spot where he died, having given the name of my ill-fated friend to a river which hides itself in the sandy plains, near where he fell so early a sacrifice to his gallant and enterprising spirit.

* He was the eldest son of Octavius Smith, Esq., of Thames Bank, and grandson of the late William Smith, Esq., long known in political life as Member for Norwich.

CHAPTER VI.

SUMMARY OF DISCOVERIES.

RIVERS AND MOUNTAIN RANGES DISCOVERED—DISTRICTS OF BABBAGE AND VICTORIA—MR. MOORE'S VOYAGE TO HOUTMAN'S ABROLHOS AND PORT GREY — DISTRICT TO THE NORTH OF PERTH.

HAVING now brought the narrative of my expedition along the western shores of Australia to a close, I shall here retrace in a brief summary the principal geographical discoveries to which it led.

The country examined during this expedition lies between Cape Cuvier and Swan River, having for its longitudinal limits the parallel of 24° and that of 32° s. lat., and the expedition combined two objects; —the examination and nautical survey of such parts of the coast lying between these limits as were imperfectly known, and the exploration of such parts of the continent as might, on examination, appear worthy of particular notice.

In the course of my explorations, ten rivers, which are, when considered with reference to the other known ones of Western Australia, of considerable importance, were discovered, some of them being larger than any yet found in the south-west of this continent; many smaller streams were also found.

The larger rivers I have named,—

The Gascoyne,
The Murchison,
The Hutt,
The Bowes,
The Buller,
The Chapman,
The Greenough,
The Irwin,
The Arrowsmith,
The Smith.

Two mountain ranges were discovered; one at the northern extremity of the Darling Range, and about thirty miles to the eastward of it, lofty and altogether differing in character from the Darling, which at this point, where its direction is nearly north and south, is called "Moresby's Flat-topped Range."

I have taken the liberty of naming this northern range after her most gracious Majesty, "The Victoria Range;" and the extensive district of fertile country, extending from its base to the sea, and having a length of more than fifty miles in a north and south direction, I have also named the "Province of Victoria,"—trusting that her Majesty will not object to bestow her name upon one of the finest provinces in this her new, vast, and almost unknown empire; and which, protected in its very birth and infancy by her fostering hand, will, doubtless, ere long, attain to no mean destiny among the nations of the earth.

The other range is thrown off in a westerly direction from the Darling Range; it is about forty miles in length from north to south, of a bare, sterile, and barren nature, and terminates seaward in Mount Perron and Mount Lesueur; to this range I have given the name of "Gairdner's Range:" it forms a very important feature in the geography of this part of Australia.

Three extensive districts of good country were also found in the course of this expedition,—the "Province of Victoria," before alluded to, the district of "Babbage," and another adjacent to Perth, to which I have not affixed a name.

The district of Babbage is situated on and near the river Gascoyne, which stream discharges itself in the central part of the main that fronts Sharks Bay, and may, indeed, almost be regarded as the central point of the western coast of Australia; thus at once occupying the most commanding position in Sharks Bay, and one of the most interesting points on that coast; it is, moreover, the key to a very fine district, which is the only one in that vast inlet that appears well adapted to the purposes of colonization.

Immediately to the south of the southern mouth of this river commences a line of shoals, which, at low water are nearly dry, extending to a distance of from two to four miles from the coast, and running with scarcely any intermission round the bay: except at high-water, it is, therefore, impossible to approach the greater part of the coast, even

in the smallest boat, unless by tracking it over those flats, which proceeding is not unattended with danger,—for, if it comes on to blow at all hard, owing to the shoalness of the water, the whole of them becomes a mass of broken billows. I feel convinced it was owing to this circumstance that the navigators, who had previously visited this bay, left so large a portion of its coast unexplored.

The shoals in the vicinity of the mouth of this river, as well as those in the river itself, have many snags upon them; and on the coast of Bernier Island, opposite to the main, we found the remains of large trees which had been washed down the river, and had then been drifted across the bay. It was that circumstance which first convinced me that a large river existed hereabouts, and induced me so minutely to examine the coast.

This occurrence of drift-wood in the neighbourhood of large rivers, is a circumstance unknown upon the south-western shores of this continent. I, however, observed it in Prince Regent's river and other rivers to the north, as well as in the Arrowsmith. This latter, however, is the most southern river in which I have remarked it, and it certainly is an evidence of the existence of timber of a much lighter description than has hitherto been known in this part of the continent.

The southern mouth of the Gascoyne is, however, completely free from shoals, and has seven feet water

on the bar at low tide. There is also a channel in it, which has never less than this depth of water for about four miles from its mouth, after which it is only navigable for small boats in the dry season, and that merely for a short distance.

The greatest difficulty which presents itself in entering the southern mouth arises from what in America are termed snags, that is, large trees, the roots of which are firmly planted in the bed of the river, whilst the branches project up the stream, and are likely to pierce any boat in its passage down. These snags are, however, more to be feared at the time of high water than at any other period, for they have generally become fixed upon shoals as they originally descended the river, and at low water can easily be seen.

The northern mouth of the Gascoyne is more difficult of entrance than its southern one, being narrower and more shoal. I still, however, think that at high water it could be entered by small craft; but as my examination of it was hurried and imperfect, from our being pressed for provisions at the time I was there, the opinion I have given above must be received with caution.

Our visit to this river took place at the close of a season, which had been preceded by the driest one known since the occupation of the western coasts by Europeans. There was consequently but little fresh water in the bed of the river, and this only in small pools; but the breadth of its main channel (for it sometimes had several) was, where

I measured it, upwards of three hundred yards, and this measurement was made in a part which was by no means the widest.

The bed of the river was composed of fine white sand. The country had a gentle slope from the interior, and no land of any great elevation was visible from the farthest point I attained, distant about fifteen miles from the coast.

Plains of a rich reddish loam bordered the river on each side. These were occasionally broken by low, gently-rounded hills, composed of the same soil. Fresh-water lagoons, frequented by wild-fowl, were found in several places; and, during the course of my walks, which extended for several miles in various directions, I saw no termination to this good land, except on approaching the sea, where the salt marshes always commenced; but along the southern bank of the river, to the point where its mouth actually disembogued into the open bay, the land was of a fertile description: the country, even in the dry season, during which we were there, being covered with rich grass.

I ought here to state, that this river is the most southern one that I have ascertained to be deficient in that universal characteristic of all those in the south-west of this continent,—"an estuary." I must observe that I have not seen the mouths of three or four of the rivers before enumerated, and cannot, therefore, say that some of them may not terminate in estuaries; but the Gascoyne discharges its waters by two mouths of considerable magnitude,

between which lies Babbage Island,—the southern mouth being in latitude 24° 57′.

This is also the most southern river onthe western side of this continent, where the rise and fall of tide is sufficiently great to exercise any influence upon it, relatively to the purposes of navigation. Hence, it would appear, that the presence of estuaries at the mouths of rivers on this coast, is in some way connected with the amount of tidal elevation at the points where they are found. The rise and fall here was about five and a half feet; but there is only one full tide in twenty-four hours. The first tide rises to a certain point, and it has scarcely commenced to ebb, ere the second comes slowly in, so that, to a careless observer, only one tide is perceptible.

The province of Victoria is situated between the parallels of 27° 30′ and 29° 30′ s. lat.; its most considerable river is the Hutt, which disembogues into a large estuary. A few miles above the estuary, the river separates into two branches, both of which were running strong at the time we passed them.

Previously to our reaching the Hutt, our boats had all been wrecked; I had, therefore, no opportunity of examining whether the estuary of this river was navigable or not; from its size, however, I should be inclined to the affirmative. The other principal streams which drain this district, are the Buller, and the Murchison.

One remarkable feature in the province of Vic-

toria, is that the carboniferous series is here developed throughout a tract of Western Australia, extending in latitude from the bottom of Geographe Bay to near Cape Cuvier, and which I have carefully examined. The tract above alluded to, is the only one in which I have yet found the rocks belonging to this series: this circumstance, therefore, imparts a very high degree of interest to the district in question.

Within a few weeks after my return from the province of Victoria, applications from settlers were made to the Government of Western Australia, to permit them to occupy a district which had been so highly spoken of; this application was, however, unsuccessful, but an expedition was subsequently sent there to ascertain if there was a navigable entrance to the Hutt river. In this object the expedition was unsuccessful, but the vessel touched at the Abrolhos Islands, and at some parts of the adjacent coast, including Port Grey.* An account of some of the places visited was subsequently published in the Perth Gazette, being contained in extracts from the journal of G. F. Moore, Esq. the Queen's Advocate at Perth, who sailed with the expedition; and as Mr. Moore's description contains several points of novelty and interest, these extracts are again transcribed below.

* See page 35.—[The coast to the eastward of the Abrolhos, has been since examined by H. M.'s surveying vessel, the Beagle, Capt. Wickham, R.N., and whilst these sheets were passing through the press, an account of the survey of Port Grey, under the appellation of Champion Bay, appeared in the Nautical Magazine for July 1841, p. 443, from which periodical it has been copied into Appendix (B.) at the end of this volume.—Ed.]

"EXPEDITION TO THE NORTHWARD."

"After Captain Grey had the misfortune to have his boats wrecked in Gantheaume Bay, having started thence with his party, and walked to Perth; he reported that he had passed over extensive tracts of fertile country in the neighbourhood of Moresby's Flat-topped Range, where there are several rivers, one of which (the largest) he had called the Hutt River, after His Excellency the Governor. His Excellency having directed the Champion schooner to proceed to explore the coast, with a view to ascertain whether there was any practicable entrance to the river, and whether there was any harbour, shelter, or anchorage in that neighbourhood, also what sort of anchorage there was about the Houtman's Abrolhos; it appeared very desirable that such an opportunity should be taken advantage of to obtain, at the same time, as much information as circumstances would permit, as to the nature and quality of the soil and its general capabilities with reference to its eligibility as a district to be occupied by settlers. With this view, G. F. Moore, Esq., embarked on the trip.

"*The Abrolhos.*—Lat. by a good sight on shore, 288° 45′, subsequently corrected to 288° 40′. That part of the Abrolhos, where we anchored, seems to consist of a number of small islets, perhaps 10 or 12, lying something in the form of an irregularly shaped horse's shoe, extending for a space of perhaps 20 miles in a north and south direction. These islets, which are raised only from 10 to 12 feet above the level of the sea, are a mere mass of coral and shells, with a very small variety of plants struggling to

establish themselves upon some of them. I was rather surprised to find a few plants of the common groundsel on one of the barest. It is not improbable that these islets are upon the outer rim of the crater of a volcano, and that not only the entire outer rim, but also a large space, both interior and exterior, will eventually be elevated. Nothing can exceed the beauty of the different sorts of coral, as seen under the clear smooth water. We broke off many specimens of the branch or tree coral, which seemed to be in full vigour of life and activity. These islets appear to be a favourite resort of seals, many of which we saw, but of the sort called hair seals. The sailors knocked many of them upon the head with clubs as they lay sleeping on the shores. One of these afforded much sport, though rather of a barbarous sort, if one had taken time to think at all on the subject. Sleeping on the brink of a small lagoon in the interior of one of these islands, he was roused by the approaching footsteps of his enemy. Seeing the man close to him, with upraised club over his head, he dropped into the water. This was so shallow as not to protect him from the stones that were hurled at him from all sides, and so small that he was completely surrounded. Finding his retreat cut off, he boldly stood up and seemed deliberately to scan the most practicable mode of breaking his way through us all, but he was so incessantly plied with stones as entirely to distract him. When a well-aimed blow struck him, he wreaked his vengeance on the stone, and, diving after it to the bottom, gnashed upon it

with his teeth. At last a gun was brought by one of the party, and a well-directed shot under the ear laid him dead. Rock oysters, of a large size and delicious flavour, were found in great abundance. Range of thermometer, 67° to 82°.

"On Sunday, the 12th, continued to explore the several islands; unable to land upon the first we approached, on account of a reef which ran all round it. This was one which lay at the north-east extremity of the Horseshoe. It was high and sandy, but with some vegetation on the surface, and we saw many large seals sleeping on the sandy beach. After this, visited five or six in succession, all of the same formation, some being mere masses of loose coral and dead shells. In passing from island to island, we had many opportunities of observing the different formation and shape of several species of coral; some stood in masses of the brainstone and cocks-comb coral, some like petrified sponge, some like fans, some again of the branch coral interlaced and intertwined in every direction; again, some broad flat masses lying layer over layer, like huge sea lichens, again many presented the appearance of a fungus or great sea-mushroom, with a broad-spreading head springing from a small thick base. It is not a little singular that many of the growing islets which are nearly level with the surface of the water, have a similar form, not rising from the bottom with a perpendicular side, but with broad overhanging heads resting upon a small base. In many places we passed over some of these isolated

sea-mushrooms, upon which there was barely water for a small boat, where one step over the ledge would be in the deep sea, and you might see the hollows underneath, as if looking under an umbrella. Birds were abundant on most of the isles, and on two of them were hawks' nests, raised to the height of four feet by an accumulation of sticks, stones, and shells. This day there was but little breeze; the thermometer ranged from 76° to 86°.

"*Saturday morning, January* 25.—Stood in close along the shore opposite to the Table Hill and the Menai Hills, and examined the coast from the rigging. There are two openings of rivers laid down in the chart—that to the south being the larger, and both nearly abreast of Table Hill, and only a few miles distant from one another; and besides these, Captain Grey had marked down in another chart a considerable river, with a large estuary, close to the north of the Menai Hills, which he had called the Hutt River. As we were just on that part of the coast where all these are laid down, we were the more anxious and eager. We saw three openings on the west range, but, in truth, very small, and after anchoring nearly opposite to the northern one, we went in the boat directly for it. There was a continuous sandy beach the whole way across it, and the surf was running high, so that it was not very easy to land. Just as we were considering about how to effect a landing, we observed a number of natives on the hills and behind the beach, evidently watching our motions. As we stood along the beach,

looking for a landing-place, they followed and became more bold; they shouted and made gestures, which were certainly not like those of encouragement; but still as we pulled on, they followed, till we counted forty-nine men, but they appeared to have left their spears behind them. Finding this, we thought it well to parley with them, when we backed in close to the shore, holding up our hands, making signs of peace, and calling out in the Swan River language that we were friends, and would give them bread. I flung a piece of biscuit on the beach, and some waded into the water and threw in their fur belts and other ornaments, when we commenced a system of barter immediately. They had no spears, and few throwing sticks; nor had they with them either cloaks, or hammers, or shields, or any other weapon that we could see. They seemed to like the bread very much, for they followed us for many miles, still making signs to land, but the surf was so high, we could not venture in the face of so many of them. At last, having passed the opening of the second river, and having come to a smooth place, I jumped out upon the beach, and was soon followed by the Captain. They evinced a considerable deal of uneasiness at first, and looked with much jealousy at the gun as something suspicious. They wished me to part with it, but I sat down and intimated that I would keep it on the ground beside me. I addressed them in the Swan River native language, and they spoke much in return, but I must say that our language seemed to be mutually unintelligible. At last,

by watching their mode of intonation, and accommodating myself to their dialect, I managed to succeed a little better. In this way they understood my inquiries for water, and their answer at last was precisely in the Swan River language, ' Gaipbi jeral,' (water to the north.) Their great anxiety at first seemed to be to know whether we were women. In answer, I pointed to our beards, when they pulled their beards, and said, ' Nanya patta,' by which name I have heard it called at Swan River also. Then they pointed to some young lads in the boat, and asked were they women. No; I said they were ' golambiddy' (boys), which they seemed to understand. I saw them eating the fruit of the *mesembryanthemum* (the Hottentot fig), but they did not understand either of the names used for it at Swan River—' golboys,' or ' mejaruk.' They called it by a different name. After a little, they volunteered to take us to water, and we walked along the beach with them, clustering about us with a show of friendship that was even more familiar than agreeable. One of them repeatedly asked me, ' were we dead?' at least so I understood him. At length we approached the opening of the river, in which they indicated the water to be, but how were our great hopes disappointed when they led us to a little hole scraped in the bed of the river, containing about a pint of water. We afterwards saw several other holes of the same sort, with more or less water in them; and it will be well to bear in mind that some of these were not fifty yards from the beach, and it is quite

possible that if they were dug out, a good supply of water might be obtained. They then wished us to go up the valley of the river with them, but we ascended a high hill to the north side, being desirous of getting a view, and in hopes of seeing the large estuary pencilled on the chart by Captain Grey. From this hill we had an extensive view of all the country to the west and north of the Menai Hills. The whole face of the country looked grassy, and thinly sprinkled over with what may be acacias, probably the mangart, or raspberry-jam-scented wood, as it had just that appearance, and a kily which we had got from the natives in the morning was made of that wood. But there was not even a drop of water visible, nor any sign of a large river,—though this is just the position assigned to the Hutt River; but certainly it is quite possible that nearer the source of these rivers there may be larger reservoirs and more water, which may be to a great degree absorbed before it reaches the sea, as we find this to be the case with many of the rivers of this country. In the mean time the natives seemed dissatisfied about our going on the hills, and offended, and were very importunate with us to go down to the low grounds in the valley. 'Koa yeka,' ('Come this way,' as I understood it,) was their constant call; and when at last we did consent, as we were going down the side of a steep, rocky limestone hill, I could not help feeling that we were very much in their power. Looking round suddenly upon one occasion, I observed a man making gestures with his feet at the

head of the Captain, as if shewing to the rest how he could knock him down easily. The man seemed uneasy at being detected, but I laughed it off as a joke, which probably it was after all; but their manner seemed to have changed considerably. When we arrived at the level ground they became very urgent that we should 'sit down in the shade,' —'Maloka nineka,' (a Swan River man would say 'malôk nginnow.') They caught hold of us, and pulled us, and wanted very much to get the guns from us. Thinking it most prudent to return to the boat, we turned with that intention, when they did every thing they could, short of using force, to prevent us. They stood in our way, they caught us in their arms, they pushed us, they tried to snatch or seize our guns, but we persisted steadily and good-humouredly to make our way back towards the boat. One old man wished me to approach the brink of the high ground overlooking the bed of the river, but seeing that it was a perpendicular precipice to which he was leading, or rather pushing me, I suddenly clasped him with one arm, and walked away from it, at which the rest set up a shout of laughter. His intentions may have been perfectly friendly, but I certainly did not feel confident that they were so. I intimated that when we got to the boat we should give them some more bread; and I felt that the knowledge that the bread was in the boat was likely to be very much in our favour, and to contribute mainly to our safety. My fear was that they had

sent for their spears, and wished to detain us till they came. However, we arrived at the beach, where the boat was standing outside of the surf waiting for us.

"On our return to the ship, I proposed that we should now touch at the more northern river, where we were deterred from landing by their first appearance. We went, therefore, to the mouth of the river, which is completely blocked up by sand-hills, with two or three small gaps, through which water appeared to have made its way at some time; but the entire of the bed of the river, which was only a few yards wide, was covered with growing samphire. There were two or three small pools of very salt water above this, but no fresh water visible. We took a hasty view from a high sand-hill. The interior, where we could see anything of it, looked grassy, and there was some grass even on the sand-hills near the beach; but our view was very limited and hurried. We had no sooner returned to the boat, than we saw a party coming along the beach about a quarter of a mile away, and another party on the top of the hill above, where we first saw them, and where we supposed their weapons to have been left. They shouted—we went on board.

"*Sunday morning.*—Weighed anchor, and stood to the south to examine a bay opposite the southern part of Moresby's Flat-topped Range. This bay, which is not laid down in the charts, was found to be an excellent anchorage, completely sheltered from

all southerly winds, which are the prevailing winds on this coast at this time of the year, and also much protected by a reef running north and south from the extreme point of the bay. This reef or bank was found to have from three to five fathoms upon it, and within it there was seven fathoms, even near to the shore, at the bottom of the bay; and there is no appearance of any heavy sea or violent action of the water on the beach at any time of the year.* To the south of the tongue of land which forms the bay, there is also another bay, which would be completely sheltered from all northerly winds, so as to combine between the two bays perfect shelter at all seasons of the year. From the deck of the schooner, where she lay, we had a view of the entire slope of ground, from the beach to the top of the range,

* The report of this bay by the Master of the Champion is as follows:—"26th January, 1840. Anchored in a bay not laid down in the charts, lying in latitude 28° 50′, the north land bearing N.N W., and the south point S.W. A reef breaks off the point, the north part of which bore W.S.W.; but it extends far more to the north, and breaks, I presume, in bad weather. The reefs extend also a great way to the westward of this point. We anchored about half a mile from the shore in seven fathoms water, and about three miles from the head of the bay. The soundings are exceedingly even for five miles, carrying seven fathoms—never varying: just before, we carried four and five, when, I think, we passed over the reef, which appears to me to join the main at that distance from the S.W. point. The beach does not show the least sign of any sea. Found two posts stuck up in it. I consider this bay an excellent anchorage during summer; and, I think, from the appearance of the beach, it must be safe in winter."

about five or six miles distant. The range seems to consist of isolated hills, rising from an elevated plain. Judging by the eye, at that distance, the entire space, as far as we had any opportunity of seeing, after going a little way back from the coast, on the slope to the hills, upon the hills, among the hills, beyond the hills, and, in short, everywhere, as far as the eye could discern, appeared a grassy country, thinly sprinkled with some low trees or shrubs, perhaps the acacia. If this be the case, and that there be water sufficient, of which there is no reason to doubt, this may certainly turn out to be the finest district for sheep pasture that this colony can possess. What may be the breadth of this district, how far it may extend into the interior, of course nothing can be known or said; but from what I have now seen, and from what Captain Grey has seen on a former occasion, there is little doubt that it extends north and south from the northern part of the Menai Hills as far south as the River Arrowsmith—a distance of more than 80 miles. To the south of that river comes the range of hills which Captain Grey has called Gairdner's Range, and which is supposed to be the northern termination of the Darling Range; if so, it is very probable, that by keeping on the east side of the Darling Range, a continuation of pastoral country might be found all the way to Moresby's Flat-topped Range. In coming to our anchorage this morning, we passed the opening of another river—that which is laid down in Captain King's charts as the largest. From

what we saw of it, I do not think that much water can issue from it either, although its bed looked larger and better defined than any we had seen hitherto. The man from the mast-head said he saw the sandy beach all across it. But the Captain being anxious to examine the anchorage in the bay, did not wish to come to anchor sooner, so we passed on, perhaps 10 or 12 miles to the south of it. Just as they were about to let go the small anchor, which had been used since the first was broken, it was discovered that it also was broken nearly through, so we had to drop a large and heavy one, being the only one now remaining in the ship. We then landed in the boat, and saw two pieces of ship's timbers set up in the sand of the beach, about half a mile from each other. Dug and examined under and about the largest of them, in hopes of finding some directions, probably about fresh water, but found none. Examined a place where the tea-tree and wattles were very green and luxuriant looking; it appeared like a swamp in winter, but quite dry now. Was struck by the singularity of some tea-trees growing, of a large size, both up the sides and on the tops of high sand-hills, but which appeared to rest upon limestone. Got a view to the east and south of the range—the country presented the same appearance as before. It must be remarked, that the grass was all parched and withered, and of a yellow straw colour; and it was from this colour, principally, that we judged of its existence on the distant grounds. Those who have once seen tracts of withered grass

will not readily mistake its appearance; but the green of the shrubs was extremely vivid. One observation which we had repeated occasion to make, was the constant heavy dews which fell at night on this coast, rendering every thing about the ship quite wet. The wind was off the land—the country all around seemed to be on fire in the morning—the thermometer, as I stood on the deck, was 94°. In the evening, the wind came round to the north-west, and, desirous of availing ourselves of such a favourable breeze, we got on board and set sail, but were obliged to stand well out to sea to clear the reefs. Towards night it fell calm again, and there was some lightning in the north."

The third district lies immediately to the north of Perth. It contains four rivers :—

The Norcott,
The Moore,
The Smith,
The Hill.

The Norcott and Moore Rivers, about fifty miles to the north of Perth, were before known; and about twenty-five miles to the north of Moore River is the Smith. The Hill comes out of Gairdner's Range, the natural northern limit of this district, which is connected with Perth by a chain of fresh-water lakes, the greatest distance between any two of them being not more than from five to six miles. The whole of this district is, therefore, fit for location, and affords a gratifying proof

that the flourishing colony of the Swan is by no means deficient in good and immediately available land.

The circumstance also of this district being so abundantly supplied with water, even at the end of an uncommonly dry season, which was the period I traversed it in, much enhances its value. It must, as the number of horned stock in the colony of Western Australia increases, be the first occupied; for it is nearer to a market than any other open to location, and affords both water and food for cattle in good supply.

CHAPTER VII.

VOYAGE HOMEWARDS.

NATURAL HISTORY.

Before quitting the Mauritius, in August, 1838, I had written to the Secretary of State for the Colonies, reporting my intention to proceed to the Swan River, and then, as circumstances might guide me, either to return from thence at once to the North-west coast, or should that not be feasible, to await further instructions from England; adding that, in the latter event, I should attempt, in the meantime, to pass the range to the north-east of the Swan, and endeavour to ascertain in what direction the streams thrown off from this range towards the interior might flow.

I have already stated the incidents that prevented me from following out the first of these plans, as well as those which led me to adopt the project of the voyage to Sharks Bay in lieu of an inland journey such as the second; and now that this last expedition was brought to a close, I had yet to await, for some time, the answer to my communication from the Mauritius, which was to guide my future proceedings. The interval between my return to Perth and the period at which a reply might be expected, appeared

too short to allow of my carrying out any comprehensive plan of exploration, and I therefore resolved to employ it, in endeavouring to extend my knowledge of the native character and language, as well as of the general position and prospects of the colony.

At this time, the death of Sir Robert Spencer, the Government Resident at King George's Sound, having caused a vacancy in that appointment, I was induced, at the offer of Mr. Hutt, to assume the temporary duties, with a two-fold desire of rendering what public services I could, during my unavoidable period of inaction in the country, as well as of enlarging my opportunities of observation on the aboriginal race.

In these occupations I remained, until the receipt of a reply from the Secretary of State, which, after speaking in terms of flattering approbation of my past exertions, notified that, for the present, Her Majesty's Ministers did not think it desirable that the researches in the North-west should be prosecuted further.

On the receipt of this I made preparations for returning to England, but no favourable opportunity offering from the western settlements, as soon as I was relieved from my duties as Resident, I embarked for South Australia, in the hope of obtaining from thence a more speedy passage, than the other colony seemed likely to afford.

After a short stay at Adelaide, I finally sailed for England on the 11th April, 1840, and reached this country in September following.

The leisure of the voyage afforded me the means of making some additions to my former observations on the Natural History of the seas we traversed, the chief results of which will be briefly given in this chapter, together with some casual observations which I was enabled to make on the Geology of St. Helena, in consequence of the vessel touching there.

June 2, 1840.—At sea: s. lat. 20° 0′; E. long. 58° 47′ 15″. I caught a species of shrimp *(Penæus)* of a delicate prussian blue colour, which was more brilliant at the extremities, and gradually paled towards the centre of the animal. There was not the slightest shade of any other colour about it, but it turned pink in some places directly it was put into spirits; it had four anterior and four posterior legs on each side.

Total length - - - -	1.45 *in.*
Length of apparatus on head -	0.17
Length of tail - - -	0.25
Head and connected apparatus -	0.52
Tail and body to commencement of first ring	0.48

June 13.—S. lat. 27° 4′; E. long. 47° 38′ 15″. A species of animal *(Alima hyalina?)* was caught resembling a scorpion, having six legs, three on each side; the first pair of legs were provided with claws, like a lobster; its tail exactly resembled that of a scorpion; the sac or bag near the extremity of the tail was of a light red colour, and it tried to strike with its tail, as if for the purpose of stinging. Eyes pale blue, and prominent; body nearly diaphanous, with pale red spots.

Total length - - -	0 33 *in.*
Length of body - -	0.20
Breadth across from eye to eye -	0.13
Breadth of body - -	0.14

Several of the animals which I supposed to be the *Velella* of Lamarck, and some of which had been caught on the 11th of November, 1837, were also found to-day. Caught also a species of animal which I had found on October 22, 1837, in s. lat. 37° 44′; E. long. 38′; and again on Nov. 12, 1837, in s. lat. 30° 11′; E. long. 100° 31′ 30″. It resembles in shape and size a large grape.

Extreme length - - -	0.5 *in.*
Breadth - - -	0.45
Total circumference round broadest part	1.30

Colour brownish blue; but there were round it twenty very narrow brownish yellow stripes, equidistant from each other, and not quite reaching either extremity of the animal.

June 16.—S. lat. 28° 46′; E. long. 42° 3′. We caught an animal this afternoon somewhat resembling a shrimp (*Erichthus vitreus*),* covered with a shield: we had caught a similar one on the 12th of November, 1837. From measurements taken from the living animal, the dimensions were—

Length from tip of tail to tip of spine, in front of head	1.15 *in.*
Ditto of spine - - -	0.23
Ditto from tip of tail to bottom of last scale	0.2
Ditto from tip of spear to end of shield -	0.7

The temperature of the water at 6 P.M. was 71° Fahr.; of the air 74°.

* See Fig. 3, vol. i. p. 51.

The shield was perfectly air coloured and diaphanous, and extended for some distance beyond the head and the upper parts of the body; the body itself was of a pale delicate blue, and it threw a very light bluish tinge upon the shield; the eyes were jet black, and placed at the end of a tube like those of the lobster; the tip of the spear was of a light red colour.—Caught also this day the lower portion of a species of Diphyes, the same I had found on the 13th of November, 1837, in s. lat. 30° 7°; E. long. 100° 50′ 10″. The total length of this was 0.5 in.

Caught also two minute animals resembling a species of shrimp (*Penæus*); colour of both pale blue. The tail of the largest when examined in a microscope precisely resembled in appearance the fin of a fish. I did not examine the smaller one. Dimensions of the largest—

Total length -	- 0.2 *in.*
Length of feelers -	- 0.15

Of smallest—

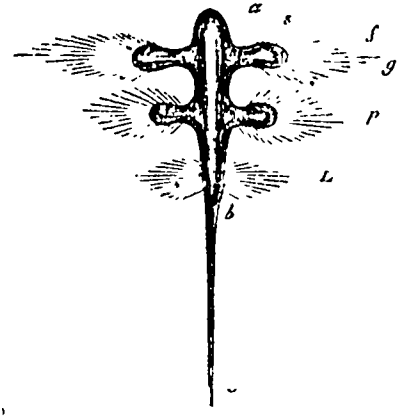
Total length -	- 0.13 *in.*

When put into Eau de Cologne these animals changed to a pink colour.

June 17.—S. lat. 29° 19′; E. long. 40° 19′. Caught a specimen of *Glaucus*.

Total length -	- 0.35 *in.*

Colour down the back deep indigo blue; stomach bluish white; sides bluish white (silvery), like a frog; tail tapering to a point; its head resembled that of a frog, and when out of the water it sat on its tentaculæ, and raised its head and the fore part



of its body, moving its head (*a*) from side to side; the tentaculæ were all so delicate that they fell off, it had apparently eight on each extremity; it belonged to the same family as the animal I caught on the 14th of November, 1837, in s. lat. 29° 26′; E. long. 101° 32′.*

June 23.—S. lat. 32° 53′; E. long. 29° 45′ 15″. We, for the first time, saw Cape Pigeons and the Albatross.

June 27. } S. lat. 35° 41′; E. long. 25° 13′ 20″.
June 28. }

Upon these two days we were in a rapid current, which we entered on the morning of the 27th, and on neither could we see the slightest signs of any of the *acalepha* class; but on the 29th, on which day we experienced no current, we found the greatest abundance of these animals; it appeared as if they had collected in large quantities at the edges of the current; and on the western side of it we found many animals which I had not seen on the opposite one.

* See vol. i. p. 55.

June 29.—S. lat. 35° 31′; E. long. 22° 20′ 30″. The specimens caught, were a minute fish, 0.35 inch in length; colour, back and upper half of sides, deep indigo; belly and lower half of sides, silver colour. Also two sorts of barnacles (*Anatifa*), which I got near the side of the vessel.

We caught to-day a great number of the animals (*Glaucus*) I have mentioned above as having been taken on the 17th of June, as well as on other occasions. I observed these animals in the water, and found that their long silk-like antennæ had, when uninjured, a length of five or six inches; they swim with the rounded part first, and the long antennæ trailing after them like tails; the progressive motion is produced by introducing water into certain sacs, or cavities, and expelling it by a contraction of the muscles with great violence. I observed their motions from a boat at first, and afterwards when they were in a glass of water. I counted the number of times they expelled water in a given time when swimming, and found the mean of several observations by a chronometer to give ten strokes in twelve and a half seconds.

We caught again many little animals which I had found on the 15th of October, 1837; s. lat. 37° 28′, E. long. 21° 19′; they were shaped like an octagonal crystal, terminating in a point, containing a brilliant blue colouring matter, they were about 0.4 in. in length, and were, when undisturbed, arranged in long strings, only the length of a single animal in thickness, and of the breadth of two of them

abreast; they swam with the blue-pointed ends downwards, which then looked at a distance like the legs of a caterpillar, and the long string somewhat resembled a long gelatinous band in appearance as it passed through the water; but directly it was touched the animals separated themselves from one another. These strings were sometimes seen several feet in length.

We caught large quantities of these animals at one time, and found

The temperature of the water	65°	Fahr.
,, of the air	75°	
,, of the animals	66°	

We caught also a fish (*Orthogariscus*), which the seamen called a devil-fish.

	ft.	*in.*
The length of it was - -	6	2
Breadth from fin to fin - -	3	6
Length from tip of nose to pectoral fin -	2	0
Thickness through the breast -	1	6

This fish was infested about its nose with a kind of parasite (*Lernæa*), having two long thin tails. The sailors stated that these animals frequently cause large sores about the nose of the fish, and that when suffering from this, it will allow the sea birds to sit on it, and peck away at the affected part. The habit of the fish is to swim during calms, with one of the hind fins out of water, and it is then harpooned from a boat. I have myself seen petrels perched upon them; and directly one of these fish was hoisted on board, the sailors looked for the parasites and found them. Their dimensions were—

	inch.
Total length - -	1.0
Length of tails - -	0.57
Ditto of fore part of body -	0.25
Ditto of hind part of ditto -	0.15
Breadth across body -	0.25

They were covered with a transparent shell, marked with grey spots and lines; the hind part of the body, near the tail, being darker than the fore part, as though the intestines were seated there. These little creatures adhered strongly to any substance that they were laid on, and caused an irritating feeling to the skin, if placed on it; they swam with great rapidity when put into sea water, and in their movements in swimming much resembled a tadpole; their tails were merely long transparent fibres.

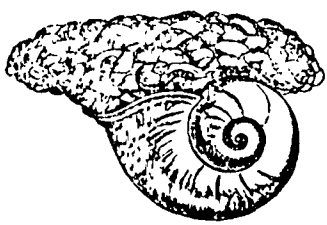
We caught also several transparent bodies, shaped like a balloon *(Beroe?)* These consisted merely of a sac. At the flat end of the spheroid was a small ring of a pink colour, from which ran lines forming the ribs, which supported the sides of the animal. There were eight of these: they possessed great irritability, and if the animal was at all injured, a rapid and continued motion was propagated all along them. Some of these animals were between two and three inches in length, but they were so delicate that it was impossible to examine them, for they fell to pieces directly they were touched. Only one of these ribs was, at times, affected at the same moment,—so that they appeared each to be capable of an independent movement.

We caught also many small insects, and some shrimp-like animals.

The sea was full of some things resembling hairs, but which broke the moment they were touched.

On this evening we placed a large number of acalepha in a bucket, and on agitating the water it became a mass of phosphorescent light. It is strange that these animals should never emit this light without being irritated.

July 1.—S. lat. 35° 51′; E. long. 18° 56′; average temperature of water, 65°. This day many specimens of different kinds were taken; and amongst them a shell-fish *(Hyalea)*, the same as that caught on the 13th Nov. 1837, in s. lat. 30° 7′; E. long. 100° 50′ 10″. This fish to-day put out the apparatus with which it swam. It consisted of two broad transparent wings, shaped like the first pair of wings of a butterfly, and which it moved in a precisely similar manner. Its shell was of a delicate pale transparent brown colour, with a jet black spot in the centre. (See vol. i. page 51, Fig. 1.) We also caught an animal of a precisely similar form and colour with this, but which was not provided with a shell.



The other specimens were * 1. A shell *(Janthina)*, the same as was caught on Nov. 14, 1837, and on several other occasions, with its swimming apparatus attached.

* The corresponding figure, at p. 54, Vol. 1, should have been reversed.

2. Several of the small shells which resemble belemnites *(Creseis)*, which were first taken on the 14th November, 1837. I this day preserved one of these with its swimming apparatus expanded.

3. An animal without a shell, which had a sort of transparent horny covering, and when alarmed and not in motion folded itself up.

4. A tube 3.2 inches in length, perfectly transparent, and swelling out to a little knob at each extremity; but these knobs were of the same colour as the body.

5. Some delicate white shells *(Atalanta)*, or very hard gelatinous animals, 0.2 in. in length, 0.2 wide, and 0.15 thick; they had three ridges of short spines on them, one down each edge, and one ridge running down the centre of the shell or back.

6. Some perfectly spherical transparent bodies, 0.18 in. in diameter; these neither moved nor shewed any signs of life when placed in salt water, but another animal, exactly resembling them in shape and colour, with the exception of having some light brown spots on it, unrolled itself like a wood-louse, and then swam nimbly about. They all turned as white as eggs soon after they were put into spirits.

We caught also several species of an animal with two tentaculæ, which had been also taken on the 17th June, some of these were very large and beautiful, being of the most delicate amber colour.

Also many different sorts of medusa, particularly tubes of about 0.5 in. in length, with an apparatus shaped like a proboscis at one extremity of it.

These I have not attempted to describe. In general the animals we caught this day differed altogether from those we had hitherto found during this voyage. Some few were the same, but the great majority were new.

Many of the medusæ and small gelatinous animals must be endowed with very acute sensibilities and perceptions, for they evinced extreme timidity if any substance approached them, and when plunged alive into spirits, their rapid movements and violent contortions repeatedly indicated acute pain; indeed so clearly that on this point there could be no mistake.

A mass of gelatinous animals, caught this day, gave out a slight electric shock. Some of them were shaped like the portions of an orange, and they evidently were formed to fit into one another in the manner in which they were found, although they separated directly they were touched.

July 2.—S. lat. 35° 58′; E. long. 17° 54′. This day the ship went so fast that we could not catch anything. The acalephæ were not so numerous as they had been further to the north, but we saw more and larger medusæ than I had ever before remarked. It indeed appeared as if the acalephæ diminished and the medusæ increased in number after passing the 36° of south latitude.

July 12. } S. lat. 23° 2′; E. long. 0° 26′ 45″.
July 13. }

S. lat. 21° 55′; W. long. 0° 44′. The vessel went slowly through the water, but although the net was kept towing we could catch nothing,

and there was no appearance of anything being in the sea.

July 14.—S. lat. 20° 52′; w. long. 1° 49′. This day we caught a *Velella* of the following dimensions :—

Length of interior cartilage - -	1.1 *in.*
Breadth of do. - - -	0.5
Total length of blue base - -	1.7
Breadth of do. - - -	1.0
Height of centre of crest - -	0.5
Rim round crest, in breadth - -	0.55

This animal differed from those caught on the 11th November, 1837, in the following particulars:— It was much larger. The base of the animal consisted of two parts. The centre portion was an elliptically-formed cartilage, elevated in the centre, and marked with eighteen concentric striæ, which became thinner and thinner as they approached the centre. No striæ were visible on the elevated crest with which the animal swims, but this crest was furnished or fringed with a thin moveable flap, 0.55 in. in breadth, which ran quite round it. The animal has the power of flapping this to and fro constantly, as a fish does its tail.

The outer portion of the base was of a pale prussian blue colour, increasing in depth of shade both to the outer and inner edges. Many minute black spots were dotted all over this. The under side of the outer base was of a very dark prussian blue colour, and its lower interior edge was furnished with rows of blue tentaculæ, which the animal uses as an elephant does its trunk. The whole interior surface

of the oval cartilage is furnished with successive rows of white tentaculæ, and in the centre is a long thin white tube, apparently its mouth.

These animals always swim in company. You see a number together, varying from four or five to twenty or thirty; these are all within a few feet of one another, and you may then pass over several miles and not see any more.

They produce countless numbers of little eggs, of a pale brown colour; these are apparently deposited from the interior white tentaculæ, and cannot be estimated, they are so numerous.

We also caught a minute fish, 0.6 in. in length;—a minute species of nautilus, blue, marked with striæ, or grooved, and thus different from what we caught on the 15th;—a shrimp-like species of animal 0.5 in. in length;—the lower part of a species of *Diphyes*, which had been caught on the 12th and 13th of November, 1837;—some minute animals, appearing to be the young of the larger species of *Velella* which we had taken; they were, like this animal, at first blue, but turned red soon after being put into spirits;—also a very minute pale blue species of nautilus, I think the young of the kind we caught on the 15th July.

Caught a number of gelatinous animals, differing however apparently in species from any we had found before—some were of the family of crystal-shaped animals with blue spots, so often mentioned in this journal; also several animals of the family figured June 17th, but which differed from

them in the colour of their spots. We caught to-day a Portuguese man of war *(Physalis)*, of a very different species from those which we had taken in the Indian ocean—this one had a much larger sac, or float, than the others, and the float was furnished with a crest.

July 15.—S. lat. 20° 20′; w. long. 2° 17′.—The same animals mentioned in the last paragraph of July 14th, were again caught this day. A great number of the *Velella* were also taken.

Caught a small fish :—

	inch.
Length - - -	1.2
Breadth over roundest part -	0.48

For a particular description, and figure of a finer specimen, see page 164. The mouth and eyes of this fish were placed in a curious manner—its food appeared to be the same as that of the other fish taken this day.

Caught two curious little crabs *(Nautilograpsus)*, one pale blue, and the other of a pale pink colour: also, another little pale blue crab.

	inch.
Length of antennæ - -	0.15
Length of body - - -	0.34
Breadth of ditto - -	0.12

Caught a small animal shaped like a wood-louse *(Cymothoa)*, having nine rings apparent on the back, and I think seven legs on each side, also, a tail-like fin on each side, which, when closed under its belly, formed a sort of shield for the lower part of the

abdomen. Antennæ, transparent with pale brown tips, and a few pale brown spots in them, colour pale blue down centre of the back, dark prussian blue on each side. It had the power of rolling itself up nearly double; in the same manner as a wood-louse, but not quite so close; eyes distinct and prominent. It lived a long time out of water, and appeared to me exactly like an animal I caught on the 21st Nov. 1837, in s. lat. 24° 19′; E. long. 107° 8′.

We also this day caught a *Janthina*. They have a little valve for the purpose of taking in air, with which to expand their float. These animals go in company—they emit when touched a brilliant scarlet dye. A similar animal caught on the 20th Nov. 1837, in s. lat. 25° 12′; E. long. 106° 49′, emitted a violet-coloured dye. The emission of this evidently depends upon their being irritated, as I found by many experiments.

The method in which this animal fills its float is curious, it throws it back, and gradually lifts the lip of the valve out of water, until the valve stands vertical, it then closes the valve tightly round a globule of air, around which it folds, by means of the most complex and delicate machinery. The valve is then bent over until it touches the edge of the float nearest the head, and when it is in this position, the portion of it which is inflated with air looks like a bladder, the air gradually is expelled into the float, and as this process takes place the bladder in the valve diminishes, and the valve becomes by degrees like a lip pushed forwards until

it lies flat on the float—the valve is composed of two portions, a cup and a lip. The time occupied from first removing the valve from the float, until the inflation, and the expulsion of air into the float being completed, so that the valve begins to move again, is 61 seconds, from the mean of several experiments.

These animals have also the power of compressing the valve into a hollow tube, which they elevate above the water like a funnel, and draw down air through it.

The colouring matter which they emit has no stinging, electric or deleterious properties whatever, that I could discover. I found that when this colouring matter was mixed with water, it became of a deep blue. In those which I caught in Nov. 1837, I may have been deceived, and the colouring matter might also possibly have been scarlet directly it was emitted. It is difficult to conceive what use this liquid can be to the fish against its foes, yet it certainly uses it as a means of defence.

To one of these shells, the fish in which was alive and well, we found attached a number of barnacles, some of which were of large size.

This sort of *Janthina* was very abundant; to-day we caught eight, and saw great numbers of them:—yesterday we caught a smaller one of a different species. (*J. exigua.*)

This kind of *Janthina* is attached to its float by a sort of peduncle, which it has the power of

elongating, so that the fish itself sinks, with its shell, and yet remains attached to the float, which continues at the surface. In one instance, I saw this peduncle elongated to a length of 0.9 inch. It may, of course, have the power of sinking itself much lower than I have seen it do. When it is in this state, the apparatus with which it fills the float remains behind the peduncle in a state of perfect quiescence.

The scarlet fluid emitted by this animal is of such a consistency, that it can be drawn away from it out of the water, like a glutinous thread.

A part of the animal requires attention—it is composed of an outer cup, or circular lip, which it has the power of contracting or expanding in the same manner as the valve; and when opened out like a cup, an orifice can be seen at the bottom of it. It can also expand, and make broad the arm; and it then appears to use them as sails.

This species of *Janthina*, I afterwards found, has the power of in some manner taking in by suction a quantity of water, which it can suddenly expel again with great violence, sending it out as if from a squirt.

We caught, also, an extraordinary fish this day. Its mouth has the appearance of being situated on its back; a fin, 0.4 inch in length, projected directly out from one side of the fish, and there was every appearance of a perfectly similar one having been torn from the other side; a hard

horny membrane projected from underneath the stomach of the animal, being apparently a sort of fin.

Its colour was of a silvery metallic lustre, having in parts a burnished appearance, except where it is shaded, (see Fig. page 164,) and then it was of a dark green colour; the tail was perfectly transparent, except just where it joined the body, and there, where the shaded line is, it was dark green.

This fish was swimming about, apparently preying on the tentaculæ of the barnacles, of which there were numbers round the ship attached to the dead Velella, some of which I had caught yesterday; it appears, therefore, probable, that its mouth was placed in so extraordinary a position to enable it to seize this pendant prey.

We caught, this day, a number of *Velella*, which are furnished with crests; some of them were dead, and nearly always when such was the case we found a species of barnacle attached in great numbers to them. When these animals had only recently died, so that the whole of their blue base had not been detached from them, the barnacles were generally very minute, so that the naked eye could only just detect them, and there were no large barnacles on the same fish: now, how did the minute ones get there? As the barnacles grew larger, the remains of the velella changed into large excrescences, half the size of a walnut.

We caught also several little animals, all of the

same species, which swam about on the surface of the water with the greatest rapidity, performing the same kind of evolutions, that we see in a little black and white insect (*Gyrinus*) which swims on the top of tranquil pools in England.

July 16.—This day a curious animal was caught, perfectly diaphanous; total length 0.8 inch; length of third leg, 0.4 inch; this was provided with a claw like a crab; head shaped like a grasshopper, 0.2 inch in length, and placed like the head of a grasshopper, at right angles to the body; eyes black and prominent, apparently four, two on each side; first and second legs of nearly the same length; the third leg nearly double the length of either of the others; five on each side. The top of the head is divided into two prominent knobs, one on each side, which, viewed through a microscope, appear to be minutely reticulated.

The animal may be considered as consisting of four portions: the head; the upper part of the body, 0.18 inch in length, and divided into five rings; the lower part, consisting of one shield-like portion, 0.12 inch in length, the body at the lower portions of this decreases almost to the thickness of a thread; the tail, 0.3 inch in length, and divided into three shield-like pieces, laid one over the other as in the shrimp (imbricated); at the lower extremity of each of these scales, there is on each side a fin-like leg, in addition to those above-mentioned. Breadth of the animal across its head, 0.2 inch, and this was the

broadest part of it. It lived for some time out of water, and even when put into spirits, it swam in an extraordinary manner, falling head over heels every time, which motion it accomplished by swimming on its back and making rapid strokes with the fin-like legs with which it is provided behind.

We also caught to-day, several little crabs and barnacles. I kept one specimen, to shew old and young barnacles attached to the same Velella.

The sea was, this morning, covered in places with fleets of the *Velella* of Lamarck; also with great numbers of the species of *Janthina* which I described yesterday; to both of these kinds of animals large clusters of barnacles were frequently attached. These barnacles preyed on the different gelatinous animals which were swimming about. It was curious to see them seize on these with their hooked tentaculæ, and draw them in, whilst the acalepha, or gelatinous animal, contracted and dilated itself with all its might and main, endeavouring to escape. We saw two or three times very large shoals of porpoises a-head of us, and when we reached the spot where they had been, we found the sea quite cleared of the animals with which it was covered in other places, so that we imagined the porpoises must have been feeding on them. We saw also a whale and a shark to-day.

Although these little floating animals were so numerous, there were but very few of the gelatinous

species to be seen, and they were chiefly of the larger sorts. I saw one of the species (*Glaucus*), of which I have given a sketch, on the 17th of June. Like all the animals of this species which we caught to the westward of the Cape, it had a red intestinal spot in it; but, excepting in its great size, it differed in no respect from the others which I had seen: this one was at least a foot in length.

A number of black minute animals were caught, which, at a rapid glance, looked not unlike fleas with long feelers, or antennæ.

We caught also this day an animal, (*Salpa*) which consisted of a gelatinous transparent bag, having an orifice, provided with a valve, that opened and closed the orifice at pleasure; there was no other opening to the sac that I could discover; I passed the end of a pencil down it, but although it passed readily through the valve, it could not at first pass through the bottom of the gelatinous sac; but I afterwards found that this was an error, and that the pencil could be passed right through the body of the animal, which was provided with a valve at each end. I found also that the united animals had the power of swimming with either end foremost. There was an intestinal tube in the animal of a dark reddish brown colour. This animal appeared to exist very badly alone, fourteen of them were always found united together by a plane; they then formed a mass shaped like half an orange, and having a cup

at its upper surface; the intestinal canals, when they are in this position, are all brought near to one another, and the whole mass looks not unlike a flower; they are united to one another by so thick a fluid that it is very difficult to separate them. If one or more are torn away from the mass, the outside ones immediately join together, and form a united mass again, of the original shape. They open the orifices at different times: that is, two or three open theirs at the moment that some of the others are closing, so that no regular or simultaneous movement takes place between the different animals. This irregular movement of the animals gives to the whole body an irregular rotatory motion; but when one is separated from the others, it can only drive itself round and round upon its own centre, and has not the faculty of propelling itself as the other acalepha have. They also swim with either end foremost, in the manner the other acalepha do.

We saw also some animals of this class, and nearly as large as the ones I have just described, but they differed in their form and mode of attachment, and joined themselves in long strings, two deep, so as to look like gelatinous snakes. I have before described animals of this class with blue spots. I think that a good mode of classifying these animals would be from their form of arrangement when united.

July 17.—S. lat. 19° 47′; w. long. 3° 5′ 30″. Found a small animal (*Cymothoa*), like a wood-

louse, similar to the one we caught on the 15th of this month, and to another taken on the 21st of Nov. 1837. It had seven legs on each side, besides the five, which when taken out of the water it folded over its abdomen; the colour the same as before described.

Length - - -	0.52 *inch.*
Width over broadest part -	0.2
Length of antennæ -	0.2

The annexed figure, exactly the size of life, gives a good idea of it. It lived out of the water for two or three hours, and did not die until put into spirits; it ran about on the table, as well as it swam in the water, so that it was evidently amphibious. It swam about from a dead shell of the Velella, to a nautilus, and from that again to some barnacles; each shell that it reached it climbed up, and folding up its fins ran all over it, so that it appeared like a little navigator which was roving from island to island in the ocean, seeking food and nourishment from all of them.—Are not the ways of nature very wonderful? This little animal was at least 500 miles from any land, as we term it, yet it was surrounded by sunny islands, teeming for it with the most delicious food—and where it either basked in the warm daylight, or shaded itself in some oozy recess, as seemed most pleasant to it.

When walking on these substances it used its

antennæ exactly as insects do, and shewed an extraordinary degree of susceptibility when touched. I do not know, that I have ever seen an animal which more decidedly evinced an acute sense of feeling, and dread of pain.

The animal here described belongs equally to the Indian and Atlantic oceans, and appears, as far as my experience goes, never to venture to the south of 25° s. lat. This is now the third species of animals which I have found to be common to the Atlantic and Indian oceans, and which never venture beyond the warmer latitudes.

The question is how they got round the Cape of Good Hope, or Cape Horn?

Might we not hence infer, that there was a time when the continent of Africa did not exist?—and might not this argument be much extended? It could be combated by none of those causes which are advanced relative to the distribution of species on land; for,

1stly. The temperature of the water in southern latitudes is very cold at all seasons of the year.

2ndly. These animals are extremely susceptible of all changes of temperature.

3rdly. They have no means of warming themselves by exercise, or motion.

4thly. The species of food which they subsist on is confined to the latitudes in which they themselves live.

5thly. They would have to traverse great distances in ungenial climes, and contend against ad-

verse winds—the children of placid seas and genial suns hurried into giant waves and chilling storms.

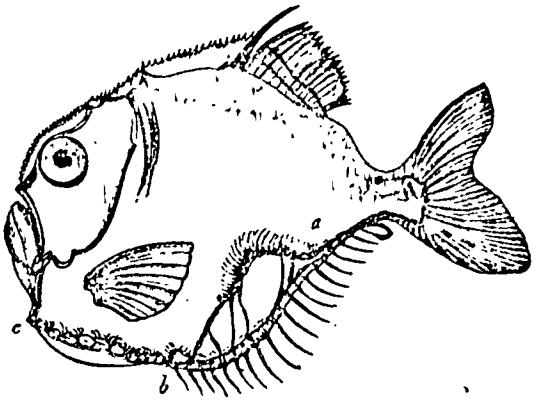
6thly. It is not probable that they are swept along in currents, from the circumstance, that in the one which flows along the coast to the eastward of the Cape we could find none of them, whilst upon its very edge they were in abundance.

Could, however, their eggs be swept along by a current, and after having been wave-tossed for months or years, be at last borne into waters sufficiently warm to hatch them, and the animals, finding themselves in a genial climate, have increased and multiplied?

The numerous little animals of the species which I have always considered to be the *Vellela* of Lamarck went sailing merrily by us to-day; the least breath of wind made them turn round and round; and this was their mode of progression, the animal moved its little sail which I have before mentioned, and worked its tentaculæ so vigorously, as to make ripples in the water, in the midst of which it went buoyantly floating along.

Caught another fish (*Stenopteryx*), of the same species as that found on the 15th of July. The accompanying figure is drawn from minute measurements. The length of this specimen was 2.5 inches — its thickness, through the thickest part, 0.38.

What I had before imagined to be either a spine or fin, turned out to be a pectoral fin.



It thus has two pectoral, one dorsal, and one ventral fin, properly speaking; but the greater part of the body is surrounded by some cartilaginous substance, which it probably uses as a fin; under the line *b c* there is a curved portion of this matter, and above and attached to the fish is a line of round white silvery scales, about ten in number.

Between *a* and *b* there is another curved mass of transparent cartilaginous substance, along the bottom of which runs a spine to which is attached a fringe-like fin. There is a spine upon the back; the eye is very prominent and bright; upon the back, between the eye and the spine, there are successive stripes of purple and burnished gold—so that this little animal is one of the most gorgeously coloured denizens of the ocean. It swims about amongst the purple barnacles, and pink nautili, seeking on the shores of these shining islands its prey—the curious formation of its mouth being admi-

rably adapted to enable it, whilst swimming under these painted floating islands, to crop off what it lists.

There were scarcely any gelatinous animals in the sea this day; but many *Janthina* shells and *Velella* were round the ship, to which were attached barnacles of different species; amongst this group of islands, numerous crabs were swimming about, and running over them—animals resembling a wood-louse, were also in the sea swimming, and running about the floating shells and barnacles.

We caught also a new species of *Janthina*, the float of which, instead of being nearly round, and extending over the shell on each side, was spread like a spiral fold from the shell; the breadth of this fold was 0.45 inch, close to the mouth of the shell, and it gradually tapered off to a point, its length being 3.6 inches. This float being curved round like the tail of an animal, the whole thing bore the appearance of being a sort of snake, of which the shell was the head; the sailors called them caterpillars before I had examined them. The float was composed of two parts, one of which was only froth, and the other was apparently some extraneous substance, attached to the froth. The shell is very different from those of the other nautili in being much more deeply indented with circular striæ.

July 18.—S. lat. 19° 49′; w. long. 3° 10′ 15″. We have lately caught several specimens of

Creseis. Each consists of a cylindrical tube, increasing in size, from its broadest extremity to the centre where it is thickest, and decreasing from the centre to its other extremity, where it becomes a fine point. It is throughout its extent gelatinous, transparent, and of strong consistency.

There is apparently a valve at its broadest extremity.

Length	1.1 *inch.*
Breadth in centre	0.1
Breadth at mouth of wide extremity	0.08

We have several times caught a triangular, transparent, gelatinous animal; it is 0.18 inch, in thickness, and in the outer pulpy gelatinous mass there is an interior sac, and strong muscular bands are marked across this. The sac is composed of three lobes, two of which have apparently no external opening, whilst at the end of the main lobe there is one which closes with a valve; through this I have seen them take in little animals, which reached no farther than the centre, from which the lobes radiate, when the sac became violently agitated, and made strong efforts to expel the foreign substance. This animal was very sensitive, more particularly about the opening of the entrance.

We caught to-day the lower part of the species of *Diphyes*, which we had found on the 13th Nov. 1837, in 30° 7‴s. lat., in the Indian ocean. This animal is thus distributed over a wide range.

We also found a very minute species of the animal,

similar to one which we caught on July 1st, 1840. Those we caught to-day were scarcely 0.05 in. in diameter. They unfolded little wings and flew with them, in precisely the way those did, which I described on that day.

Nothing I have seen is more remarkable than the flight of these little animals; their wings are milk white, and very large for their body, and as they fly, the ends, from their pliancy, bend over, which imparts to the motion a very graceful appearance; these wings are composed of a very fine membrane, like that forming the wings of a bat. At one time these little animals hovered over a single spot, like a bird of prey in the air, flapping their wings in just the same manner—at another time they darted forward with great rapidity, and the vibration of their wings was so rapid, that I could not count them. When folded up they look like very minute gelatinous animals, with a black internal spot—but when touched their shell can be felt.—We saw a shoal of whales to-day.

We have caught lately a great many small animals, of which the following is the description; they swim about from one floating substance to another, and are eaten by the little crabs, which are numerous in these seas.

Length of body - -	0.18 *in.*
Length of anterior part of body -	0.1
Length of posterior part of body -	0.08
Length of tail - -	0.08
Breadth across back - -	0.05
Depth from back to bottom of breast	0.06

Head and eyes, deep brilliant prussian blue; body brilliant prussian blue, with a bluish green stripe on each side; tail white. Seen through a microscope, these animals appear to be a beautiful dark burnished blue, mottled with silver. The head is remarkably round and regular.

The body is divided into two portions. The anterior portion is made up of six rings or shields, which lap over one another, and it is furnished with three legs on each side, which terminate in a hooked claw; the posterior part is covered by three shields, and there was only one leg on each side. I could not make out any tentaculæ or antennæ.

I was much struck by a curious circumstance to-day. As we caught a great many gelatinous animals, I thought this a good opportunity of taking their temperature, which, after an observation so carefully made that no error could occur, was found to be 66° 5′ Fahr., the temperature of the air at the same time being 74°. The temperature of the water was now taken, and was found to be 2° 5′ more than that of the animals; thus giving these animals a temperature lower than that of the fluid in which they were immersed. I conceived that some error must have been made in the temperature of the water, it was, therefore, taken again, and found to be 69° as before; this appeared to me so remarkable that I drew up a table of all the experiments which had been made on this subject, the result of which is, that the mean temperature of these kinds of animals

appears to be 64° 9′ Fahr.; and that the greatest variation in excess is 1° 7′; and in defect 2° 9′ Fahr. Is it possible, then, that an animal can live in a fluid, the temperature of which is constantly varying, and preserve nearly a mean heat?

In the following tables I have entered every experiment, but one which was made on the 17th of June, and in which I believe the animals to have been kept too long out of water.

Experiments to determine the temperature of gelatinous animals which inhabit the sea:—

1837.	*Air.*	*Water.*	*Animal.*	
October 20.	62° 5′ Fahr.	57°	62°	
November 12.	63	65	65	1st experiment
Ditto	63	65	65	2nd ditto
Ditto	63	65	65	3rd ditto
1840.				
June 29.	75	65	66	
July 18.	74	69	66 5′	

Experiments to determine the temperature of shell-fish inhabiting the open ocean:—

	Air.	*Water.*	*Animal.*
Nov. 20, 1837.	76°	74°	80° Fahr.
July 18, 1840.	72 5′	68	76

This last experiment was made from a sickly specimen, which had been kept for some time in the water: the temperature of water above given is for that in which this animal was kept.

We caught again, to-day, many animals of the

same family (*Glaucus*) as those of which a descrip- is given in the journal for the 17th of June.

Also many shrimp-like animals (*Alima*), the bodies of which were divided distinctly into an interior and posterior portion; all the shrimp-like animals which we have caught, whose bodies are thus divided, swim by doubling up the posterior part close to the anterior, and then giving a stroke with great rapidity outwards. These little animals are very susceptible, and when they have been in the least injured, their limbs remain in so constant a state of tremor, that the motion communicated by them resembles that which would be caused by the passage of a rapid succession of electric shocks, rather than any other I am acquainted with.

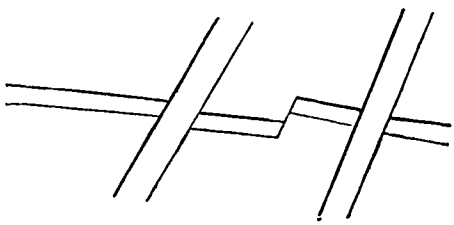
ST. HELENA.

July 21.—After visiting Longwood, and Napoleon's tomb, we rode to Flagstaff Hill, to search for fossil shells. The whole soil that I saw was composed of decomposed old volcanic rocks; but I saw no rock but basalt, in different stages of decomposition; sometimes it assumed the form of porphyry. I also saw veins of quartz, gypsum, and jasper. On a part of Flagstaff Hill there was a thin stratum of calcareous earth, in which shells are found. My hip was so painful that I could not climb to the point where these were, but an artillery soldier ascended and brought down some, and of these I had several specimens given

me; they are found associated with bones which are apparently those of birds. None of these bones were given to me, but I saw and examined several specimens. The shells are very numerous at this point.

On returning into town I found several specimens of dead land shells, apparently recent; these lay on the sides of the hills, partly buried in the soil, and bore the appearance of having been washed into this position by the heavy rains.

July 22.—Rode over, in the morning, to Longwood, and then proceeded to Gregory's Valley, lying between Longwood and "The Barn." This valley, nearly 1700 feet in depth, appears at one period to have been the scene of great volcanic disturbances. The lowest rock I saw was a compact porphyritic one. The upper strata of basalt were in a state of rapid decomposition; but the whole of the valley was traversed by basaltic dykes in every direction; these crossed one another in such a way that it was easy to tell their relative ages; for instance several of them were in this form:—

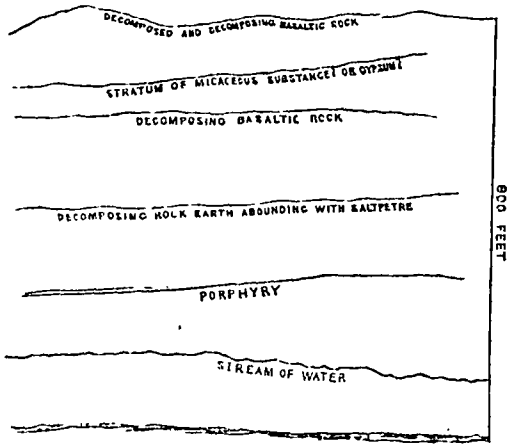


So that one had been forced from its position by another, long subsequently to its formation.

The general form of Gregory's Valley is a large

basin, bounded by a lofty precipitous mountain on one side called "The Barn," and having a very narrow opening seaward, through which a small stream has cut its way. A remarkable circumstance connected with the basaltic dykes is, that they are composed of a more compact basaltic rock than the basalt which they penetrate, so that whilst the rock has mouldered away, these basaltic dykes have remained standing; and as in the progress of their decay they split up, they present the appearances of walls, built by human hands, with regular layers of stones, and which traverse the ravines of the island in all directions.

As might be expected, I found regular basaltic crystals in this valley, and also a variety of quartz ore, and other crystals, in the veins traversing the basalt. I also found the following remarkable section :—



This was in a side valley or ravine leading from Gregory's Valley in a southerly direction.

On going down to the sea, I found many species of star-fish. I brought away three species of these with me.—Two species Pentagonal; one species Quadrilateral.

First species Pentagonal, length of side	0.55 *in.*
Second do. do. do.	0.50
Quadrilateral do. do.	0.55

I found a sort of worm in the coral, which had the power of extending its head like an English worm; its body then appeared to be composed of two portions, the fore part being much slighter than the other. Its dimensions were—

Length of fore part of body	0.4 *in.*
Length of hind part	0.6
Breadth, or diameter of cylinder	0.1

In the coral there was also another insect, not unlike a centipede.

Length	0.9 *in.*
Breadth at head	0.08

In the inmost recesses of the coral there was a minute bivalve shell, and also a very minute species of crab.

One remarkable circumstance relating to St. Helena is, that it is of a basaltic formation, exactly resembling that of the Isle of France, and the North-west of New Holland; and that, although so widely separated in longitude, these places lie in nearly the same latitude.

When you quit the sandstone ranges of the North-west of Australia, reptiles which have been before very numerous, at once become scarce. I

never saw a snake in this great basaltic district, although there were plenty in the sandstone. This, however, is only negative evidence. Brookes, in his History of St. Helena, (2d edit. page 24,) says: "There are neither frogs, toads, nor snakes in the island." In the Isle of Bourbon there are neither toads nor snakes. In the Mauritius likewise, there are neither toads nor snakes, and only one species of frog, whilst the bones of the land tortoise *(Testudo indica)* are only found in a fossil state. Also, the highest land in St. Helena is 2800 feet; in the Mauritius about 2900 feet (scarcely); and in the volcanic district of North-west Australia about the same height.

July 26.—At sea.—We caught a great variety of shrimp-like animals; these little things, when disturbed, emitted a brilliant phosphorescent light. We saw scarcely any gelatinous animals.

July 29.—Caught two small crabs *(Nautilograpsus)*; these species have the power of swimming by means of the fringe-like fins with which their legs are provided. Several other crabs were also caught; some with their eggs attached, and two varieties of shrimp-like animals with eggs. Where these were abundant the sea was very luminous. Four or five of these were of a brilliant prussian blue colour, with silver-coloured spots on the back; others were of a very delicate pink colour; the tentaculæ of both of them were of a delicate prussian blue colour.

We also caught a species of small *Janthina*, nearly resembling those we had found before, but they

were larger; moreover, the species of barnacle attached to them was totally different from any we had before found, as if each species of nautilus had its own kind of parasite. This is worthy of attention.

August 8.—We found a species of *Halobates*, which swam rapidly with the short legs foremost, and the foremost legs appeared to be furnished with a fringe to give them that power. The colour of the legs, dark prussian blue; body of a silver colour in front, with a prussian blue colour behind; under part of the body, near the tail, three consecutive striæ of a silver colour, separated from one another by a line of prussian blue. I have never seen this animal before.

August 9.—Caught two or three small insects, somewhat resembling a bug, of a dirty brick colour, and several minute species of *Diphyes* and small jelly-fish.

August 19.—Caught a small *Janthina*, nearly resembling those we had formerly seen, also a small crab, two new species of gelatinous animals, and a *Velella*.

August 20.—Several fish, resembling an eel in shape, were caught to-day; they were of different sizes, and some of them gave a slight shock on being touched. They were marked across the back with alternate striæ of silver, and various shades of brown and black, though there were scarce two marked exactly alike. They had a transparent dorsal and two pectoral fins, which were all I observed, and a long thin snout or beak; the mouth

was just at the end of it, on the top: some of them were thorny on the back;—we caught also some crabs; a very minute blue fish; a black and red insect, resembling a flea; a species of *Diphyes;* a very small kind of polypus; and one or two small jelly-fish. A land bird flew on board to-day.

In 26° N. lat. we entered a portion of the sea covered with patches of sea-weed, around which swarmed numerous eel-like fish, crabs, shrimps, and little blue fish; these last swam under those floating islands, sometimes leaving them for a little distance, but they always returned, or swam to another: the crabs crawled in and out amongst the sea-weed, and other fish of a large size came to these spots to deposit their spawn,—so that we were in an archipelago of floating islands, teeming with busy inhabitants and animal enjoyment.

August 21.—There were a great many crabs of different kinds and sizes caught to-day;—two kinds of shrimps, one marked across with alternate striæ of silver and dark brown; it had no antennæ, and had apparently been hurt, as I could only see some very short legs; the rest appeared to be of the same kind as others recently caught, except being of a lighter colour.—Some eel-fish of the same kind as yesterday.—There were two other small blue insects caught; unfortunately none have been preserved, as they were put in the same glass with the shrimps, and were instantly eaten by them. The crabs also eat two small blue fish that were caught. No jelly-fish were seen.

August 24.—Some of the eel-like fish, two or three shrimps, a new species of dypha, various kinds of crabs, and a large species of *Physalis*, were caught to-day.

August 25.—Caught various kinds of crabs, some minute shells, and a small curious insect, quite new to me, of a bright blue colour; the shrimps appear to be very fond of these insects, seizing them the instant they are put into the glass with them. We caught shrimps of all colours and sizes, many of them very beautiful; some were of a pale gold colour with bright blue spots; others with different shades of brown, and blue, white, or red spots. They all turned a dark red on being put into spirits. The smaller kinds had a round ball or excrescence on one side, just below the head. I observed to-day that the eel-fish carries its eggs in a bag under the belly; the eggs were of a bright red colour. Two barnacles were caught; also a new and very remarkable fish.

August 28.—Caught to-day two of the fish of the same kind as the one taken on the 25th. It had a dorsal fin, with 14 spines; a ventral fin; a tail, 16 spines; and, in addition to these, it had four pectoral fins, resembling the claws of a frog, which it used much in the same manner that a lizard uses its claws. The upper pair of these were divided into two joints, the lower one of which was a perfect hand, terminating in ten claws, with which it could seize hold of any object, or expand, and use it as a broad paddle, or fin. At the point where these arms are inserted into the body, and immediately

behind them, are placed two tubes, one behind each arm, these form its gills, through which it expels the water taken in at its mouth; the lower pair of arms have only one apparent joint, and each of these hands are furnished with five claws; it has two protuberances which look like horns, one projects immediately between the eyes, and the other is situated between this and the dorsal fin, these are covered with little spines, and it carries them erect. Its colour is pale yellow, with brown spots and stripes on it; the spots about the head and upper arms are much darker than the others; about the stomach are little things resembling the wattles of the wattle bird, they are of a brilliant white colour. It feeds on small shrimps, climbs about the weeds like a lizard, and, at times, swims like a fish, and is very rapid and strong in its motions. It swells out the membranes about the spot where its gills ought to be, so as to puff itself out like a toad when it takes water in: its colour resembles that of the common English frog, and it looks remarkably like one, when it sits on a piece of weed, resting on its claws, and puffing out its cheeks. There are several lines of red stripes at the bottom of its stomach.

We caught also a great many shrimps and crabs; some of the shrimps were boiled, and proved to be very good eating.

August 30.—At 5 h. 30 m. P.M., a pine tree passed us, covered with barnacles, and surrounded by fish, which swam about this floating island, eating such things as fell from it.

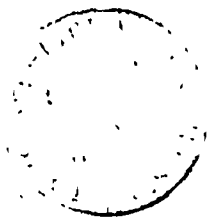
No portion of the globe is more thickly inhabited, or affords, in proportion to its size, a greater amount of animal enjoyment than did this wave-tossed isle. On it were innumerable barnacles, several species of teredo, one of which, having its head shaped like a screw split into two equal portions, I believe to have been quite new. Many varieties of crab, and minute insects, shaped like a slug, fed on the sea weed growing on the log.

These last animals were of different lengths. They were shaped like a caterpillar, and composed of fifty-six rings; the stomach could only be distinguished from the back, by a sort of excrescence which grew on the latter; each ring, or division of the body, was furnished with two pairs of legs, one pair pointing downwards from the stomach, the other pair projecting from the back; these legs were composed of bristles, and by sticking them into the timber, they were able to maintain their hold, and to walk along. In thus progressing, they drew into a case the legs of the rings they were going to move, and pushed them forward by means of the other legs, and then letting down the legs they had drawn into the case, they stuck them into the wood, and made good their ground. Their habit was to lie about amongst the weeds that grew on the tree, or to creep into some large holes that were in it. They did not die when I took them out of water, but lived for sixteen hours, and were then as well and strong as ever, only dying after they had been put into spirits.

I got also two pieces of stones from the roots of this tree; they were small, quite angular, and had been carried this distance from the continent of America without any appearance of being water-worn. This must often take place when trees are blown down and washed away by floods,—and in this manner angular pieces of stone may be conveyed many miles from the rock from which they were derived by the agency of water, and yet not be water-worn.

August 31.—At 11 h. 30 min. A.M., we found a portion of the timber of a ship on the water, containing animals similar to those on the pine-tree yesterday: this was perforated through and through by different species of teredo.

THE OVERLANDERS.



CHAPTER VIII.

THE OVERLANDERS.

CLASS OF PERSONS—THEIR MODE OF LIFE—SUDDEN ACCUMULATION OF WEALTH—EFFECTS OF THEIR ENTERPRISES—MAGNITUDE OF THEIR OPERATIONS—RAPID INCREASE OF WEALTH IN NEW SETTLEMENTS—SPREAD OF STOCK STATIONS — COURSE OF THE OVERLANDERS THROUGH AUSTRALIA — COMMUNICATION BETWEEN SOUTHERN AND WESTERN AUSTRALIA—GENERAL CONSEQUENCES OF THE SPREAD OF COMMERCE AND EMIGRATION.

It is to be expected that a totally new state of things will, in recently settled countries, give rise to different orders or classes of men unknown in older lands, but who have been called into existence by novel circumstances, and whose energies have been so developed as best to suit the modifications which these hitherto unexperienced causes may produce. In collecting information regarding the condition of our settlements in Australia, my attention was particularly drawn to the mode of life pursued by some of my enterprising fellow-countrymen, known there under the denomination of "Overlanders," and which is characterised by several remarkable peculiarities well deserving of observation, particularly at a time when so many young and adventurous spirits are looking towards that

continent as the land of their future fortunes and home.

The Overlanders are nearly all men in the prime of youth, whose occupation it is to convey large herds of stock from market to market and from colony to colony. Urged on by the hope of profit, they have overcome difficulties of no ordinary kind, which have made the more timid and weak-hearted quail, and relinquish the enterprises in which they were engaged; whilst the resolute and undaunted have persevered, and the reward they have obtained is wealth, self-confidence in difficulties and dangers, and a fund of accurate information on many interesting points. Hence, almost every Overlander you meet is a remarkable man.

The Overlanders are generally descended from good families, have received a liberal education, (Etonians and Oxonians are to be found amongst them,) and even at their first start in the colonies, were possessed of what is considered an independence. Their grandfathers and fathers have been men distinguished in the land and sea service of their country; and these worthy scions of the ancient stock, finding no outlet for their enterprise and love of adventure at home, have sought it in a distant land; amongst them, therefore, is to be found a degree of polish and frankness, rarely to be looked for in such a mode of life, and in the distant desert you unexpectedly stumble on a finished gentleman.

The life of an Overlander in the bush is one of

great excitement, which constantly calls every energy into action, is full of romantic and novel situations, and habituates the mind to self-possession and command. The large and stately herd of cattle, is at least a fine, if not even an imposing sight. The fierce and deadly contests which at times take place with the natives, when two or three hardy Europeans stand opposed to an apparently overwhelming majority of blacks, call for a large share of personal courage and decision; whilst the savage yells, and diabolic whoops of the barbarians in their onsets, their fantastically painted forms, their quivering spears, their contortions, and shifting of their bodies, and their wild leaps, attach a species of romance to these encounters, which affords plentiful matter for after meditation. As the love of war, of gaming, or of any other species of violent excitement, grows upon the mind from indulgence, so does the love of roving grow upon the Overlanders, and few or none of them ever talk of leading a settled life.

And it is not to be wondered at, that the young and ardent eagerly embrace a line of life so replete with exciting events and incidents, and which at once enriches the successful speculator, and fills with plenty and prosperity the region which he enters. The first individual who opens a market, which no other Overlander has yet visited, rides into the district, an ill clothed way-worn traveller; the residents do not at first deign to cast a glance upon him, till presently it is noised about that an overland party has arrived, that a route from the stock

districts has been formed, and that the incalculable advantage of abundance of cattle at a cheap rate has been secured; landed property instantaneously rises, perhaps to double the value it had a few hours before; numbers of persons find themselves suddenly made rich, without an exertion on their own part, and from all sides individuals flock to see their benefactor. The ill clothed way-worn traveller, now finds himself at once invested with the dignity of a conqueror. On all hands he is fêted, dinners are given to him, a piece of plate presented, and as he feels the sweets of renown, and of the wealth which he has won, he meditates fresh conquests on the trackless desert, new adventures with his tried stockmen, and further acquisitions of riches.

Then comes a strange change over the unoccupied Overlander; he has brought with him every head of stock which he could muster, and in the course of a few days his last beast is disposed of; his establishment is broken up, he awakes some morning and finds himself a rich man, but he has no stock; he has so much money, but no cattle. He no longer follows the long array of his stately herd and bleating flocks, his loaded drays and bearded stockmen, through the free wilderness; no longer regulates and watches their perilous course through the intricate ford of a deep river, or stands upon some solitary hill to reconnoitre the trackless country, and select the line along which the motley assemblage is to pass. He is now an idle unoccupied gentleman, the inhabitant of a boarding-house, with no object in

Drawn on Stone by Geo. Barnard from a Sketch by G. Hamilton Esq.

M & N. Hanhart, Lith. Printers, 64, Charlotte St. Fitzroy Sq.

CROSSING CATTLE OVER THE MURRAY, NEAR LAKE ALEXANDRINA

the world before him; but ere long the plans of fresh achievements and speculations are sketched out. You see a muster of bearded weather-beaten men, carrying short-handled whips. The Overlander enters the group, a short consultation takes place, and in a day or two more himself and his followers are under weigh for some district, where he can purchase stock cheapest, and make a good start for another market.

The magnitude of the operations of the Overlanders would scarcely be credited; a whole fortune is risked, and in the wilderness: its safety depends upon good guidance; yet far from being intimidated by the thought, the adventurers are only stimulated to a greater degree of activity. The stock of an Overlander is the capital which he has invested in a single speculation; and to give an idea of the amount of this, I will shew, at a moderate estimate, the value of a herd, the property of an Overlander who arrived in Adelaide in the month of March, 1840, from the district of Illawarra, New South Wales.

HORNED CATTLE.

260 Cows, many broken in.
230 Bullocks, 3½ years old and upwards.
190 Steers, 2½ do. do.
39 Do. 1½ do. do.
70 Heifers, two to three years old.
32 Do. one to two do.
9 Bulls.
5 Calves.
20 Working Bullocks, two shafters.

855 Total head of Horned Cattle.

HORSES.

22 Mares, all in foal, 3 to 5 years old.
5 Do. 5 to 8 do.
7 Fillies, do. 2 to 3 do.
3 Do. rising 3 years, not in foal.
5 Do. 2 do.
10 Saddle and Draught Horses.
5 Colts, rising 4 years old.
1 Do. 3 do.
1 Do. 2 do.
1 Blood Stallion.
1 Draught entire Horse.
1 Entire Pony.

62 Total number of Horses.
900 Fat Wethers.

Now, striking a low average, the value of this herd of cattle, horses, and sheep, in South Australia, was,

Horned Stock	£8,550
Horses	3,720
Wethers	1,575
	£13,845

But between this and an ordinary mercantile risk no parallel can be drawn. A merchant insures his cargo, so that his total loss can but be a small portion of the whole. The Overlander cannot do this with his stock, and runs a far greater proportionate risk. It must also be borne in mind that the statement of the herd, which I have above given, does not include all that started for South Australia, but only the survivors, who, after traversing so many hundred miles, reached in safety the destined mart.

When the Overlanders drive sheep alone, without

horned stock or horses, the number of heads is much increased, as from 8000 to 12,000 sheep are brought over at one time. They are driven in separate flocks of about 1000 each, and these follow one another in regular succession. The value of a flock of 6000 sheep cannot be estimated under £10,500.

So much for the operations of single parties; but when once a road to a new market is opened, numbers follow up the tracks of the first hardy adventurer, and the operations of the whole combined are not less startling in their magnitude, than are those of enterprising individuals. From New South Wales into the province of South Australia the Overlanders introduced, in 1839,—

4,200 Head of Horned Cattle,
130 Horses,
35,000 Sheep;

and within the three succeeding months of 1840, upwards of—

7,000 Head of Horned Cattle,
100 Horses,
25,000 Sheep;

making, in fifteen months, a total of—

11,200 Head of Horned Cattle,
230 Horses,
60,000 Sheep.

The value of the above stock being in the whole about—

Horned Cattle . . .	£112,000
Horses	13,800
Sheep	105,000
	£230,800

And this wonderful amount of stock was brought into a country which, three years before, only resounded to the war-cry of the naked savage; and the soil of which, hardened, baked, and unstirred for centuries, nursed not within its bosom seeds from which a plenteous harvest might spring, but, as if irritated by neglect and indifference, gave forth unwillingly only acid roots and scanty bulbs.

The first entrance of an Overlander into a district, may be compared to the rising of the Nile upon the thirsty land of Egypt; then does the country bear fruit, and the land give forth her increase—he enters the district silently, noiselessly, unexpectedly—but his influence is soon felt every where; merchant vessels can now obtain cargoes of wool, and no longer sail empty away. England receives raw materials, and, in exchange, are sent out luxuries and manufactured goods. New clearings are made by the farmer, who has now abundance of manure; the artisan plies useful trades, and ceases to labour in the place of beasts of draught or burden; hateful scurvy, the scourge of new colonies, is expelled, not by medicine, but by fresh meat, milk, and vegetables. But the worker of all this good is unmindful of it; he has bargained to get the highest price he can for his stock, and is already plotting new enterprises; he sought to serve himself, not others, and has accomplished both.

The first Overlander having entered a district, nothing can check the tide that follows on—it is in vain for him to declare (perhaps really conscien-

tiously) that he conceives the risk of loss of stock to be so great, that none should undertake the journey; this is only ascribed to his cupidity, and a desire to keep others out of the market; *he* has done it, and why cannot more? This argument is irresistible, and adventurer after adventurer marches upon his track.

Now comes a hurrying into the new district of speculators from the old colonies: the fact of a road being found to it from the stock country is a guarantee that it will succeed, and it is in a new settlement that the largest profits are realized. These arrivals bring with them, from the older colonies, experience, capital, and extensive connexions; fresh sources of industry and speculation are at once opened up by them; all town-land, and landed property to be purchased at a cheap rate, they secure; money circulates from hand to hand, and an impetus is given, and a progress made, which must be seen to be credited.

The tide of emigration coming in from the older colonies, is a certain sign of rapid success; those who arrive from these places are men who have done well in the first country of their adoption; but to this they had repaired when it was thinly inhabited, when land was of very low value, and to be procured near the capital; there they have realized largely, but it appears to them that nearly all the good things have now been picked up; property has attained such a value, that it rises but slowly, indeed is almost stationary in price; and the country

is so largely stocked, that they are driven to establish their sheep-stations at such a distance from the sea coast, that the expense of the transport of their wool thither greatly detracts from its value. Under these circumstances, once again do they emigrate, to repeat in a new land, the operations which have before yielded them so lucrative a return; and strong in past experience, they smile at the errors committed by the younger settlers, from which they reap many advantages.

But time, and intellect, are all worth much more in Australia than they are in England, and every one can realize upon his capital, and speculate profitably upon his intelligence, activity, and strength; for all of these he gets paid—hence but few men are willing to follow professions. Clergymen too often turn farmers and speculators, even if they do not altogether throw aside their sacred character. Medical men but rarely pursue their practice, when such remunerating fields of enterprise are laid open to them; soldiers abandon their calling; and the government officers are all virtually farmers and stock-owners.

This is to be expected, from the character of man. In a new colony every thing increases rapidly in worth—a landed estate which can be bought in the early stages of its existence at a mere nominal price, grows yearly in value, without a penny being expended upon it; stock increases in a geometrical ratio, at little or no cost, for there is plenty of land to pasture them upon—nothing of this kind either does or can take place in England; and when

the settler finds how changed his prospects are, and how new means of acquiring wealth are opened to him, he too often devotes his every thought and energy to the one object; and so far will this passion lead men, that I have known an honourable member of council, and leading magistrate in a colony, take out a retail license, and add to his already vast wealth from the profits of a gin shop.

But as stock is that species of property from which the largest returns are realized, and that with the least labour, it is to this branch of industry that settlers generally direct their attention; indeed, until plenty of stock is introduced into a new colony, its success is wavering and uncertain, and its inhabitants are generally compelled to undergo a degree of poverty and privation, which contrasts strangely with the affluence of the people occupying the more settled countries. The degree of care and attention which is bestowed upon the breeding of stock, necessarily ensures both a constant supply of it, and its rapid diffusion over all accessible portions of the continent.

It is extremely difficult to convey to a mind, which has never contemplated the subject, an idea of the rapid advance of stock stations over the continent of Australia; there is something about it which bears an almost fabulous character; and the same circumstance takes place with regard to the rise in the price of town and country lands. Those who have not witnessed such things, can scarcely give credit to them. In Western Australia, town land

was bought for twenty-three pounds an acre, in the month of December 1839; and in the month of February 1840, large importations of stock having taken place, the same land was sold for sixty pounds an acre. But in other colonies, where overland communication takes place, this would be regarded as a very small increase in price for a new colony; there are many instances in South Australia, of people realizing, in less than two years, sums of money to the amount of from ten to twelve thousand pounds, from the sale of town acres in the city of Adelaide.

To endeavour to give some idea of the rapid extension of stock stations over the face of the country, I must begin by premising that farming stock somewhat more than double themselves in two years; or at the end of two years they occupy double the space of territory; at the end of four years, four times; at the end of six years, eight times; at the end of eight years, sixteen times; and thus, at the end of ten years, thirty-two times the space of country, which was originally taken up by stock, becomes occupied by civilized man.

Exactly in the same ratio as the amount of occupied territory increases, so does the amount of wealth in the country advance, as well as the demand for labour; and the natural increase of population falling far short of this, and not supplying a sufficient number of persons to absorb the wealth which the country is capable of producing, a demand for emigration arises, and a stimulus to it is given by the

ease with which wealth and comfort are acquired in the Australasian colonies.

If the reader casts his eye upon a general map of Australia, it will be an easy task to follow the march of stock for the last four years.

Port Phillip was occupied in 1836,
Portland Bay in 1835,
South Australia in December, 1836.

The first step taken by the Overlanders was the connexion of Port Phillip with Sydney, and they thus, as it were, established a great base line from which their subsequent operations could be carried on; at this period they did not, however, bear the name of Overlanders, which was only given to them after Adelaide had been reached in 1838.

The Overlanders had hitherto been occupied in merely pushing their stock stations to different portions of the colony of New South Wales; but a new and fertile field for enterprise opened to them in the establishment of the colony of South Australia, which, as before stated, was in December, 1836; and many an enterprising mind instantly turned thitherward with earnest longings, which soon ripened into action. In November, 1837,—that is, in eleven months from the foundation of the new colony—several hardy adventurers had laid, matured, and commenced carrying into operation, plans which some deemed insane, when they heard of the amount of capital invested in so new an undertaking, but which were undertaken by the adventurers in full confidence in their own powers.

Two expeditions started almost at the same time for this new market. In February, 1838, Mr. Hawdon moved from the Goulburn, and Mr. Eyre from Port Phillip. In April, 1838, Mr. Hawdon arrived in Adelaide, and shortly afterwards was followed by Mr. Eyre, who had attempted to take a direct route from Port Phillip to Adelaide, but coming upon an impassable country, he had been compelled to turn to the northward, and then to make it by the same route which Mr. Hawdon had pursued. Just eight years before this period, a hardy party of explorers, under Captain Sturt, had first ventured in a whale boat to descend a river traversing this unknown land. Rapidly had the fruits of this enterprise ripened to maturity; the river was now made a highway of commerce, a connecting link between two countries.

In the remaining portion of 1838 and in 1839 the energies of the Overlanders were fully employed in supplying South Australia with stock; and during this period several new and shorter lines of route were struck out,—the last great improvement of this kind being made by the adventurous C. Bonny, Esq. who connected Port Phillip with Adelaide by a direct road, running nearly parallel to the coast, so that the portion of the continent of Australia which lies between Moreton Bay and Adelaide is now connected by a passable route.

During 1839 it was felt, however, that the markets of South Australia no longer afforded such large profits; but Port Lincoln was then occupied,

Drawn on Stone by Geo. Barnard from a Sketch by G. Hamilton Esqr

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BASALTIC ROCKS CAMPASPE RIVER NEAR PORT PHILLIP

and a new country opened, to which cattle and sheep were conveyed across Spencer's Gulf. This for a time afforded some employment to the Overlanders; but their spirits were secretly chafed by the thought that the limits of their career were attained. Several expeditions to the westward of Port Lincoln were undertaken, and in August, 1839, Mr. Eyre, still anxious to open a new market, pushed as far to the westward as Denial Bay; but the journey to King George's Sound seemed so vast an undertaking, that although such a scheme was often contemplated, the hazard and risk of property appeared, even to a daring Overlander, to be too great.

Yet, although none ventured, many an eager heart turned that way, and many a thoughtful face lighted up, when a promising plan was unfolded.

Whilst the Overlanders were thus speculating upon the possibility of connecting the Eastern and Western portions of Australia by one great line of communication, the new settlements of South Australia and Port Phillip were making such rapid advances in prosperity as almost exceed belief.

The settlements of Swan River and King George's Sound, which had now been established nearly ten years, were truly in a most miserable condition. So late as the month of September, 1839, when I landed at King George's Sound to assume the situation of Government Resident there, the population had been in a state bordering upon want.

But in the lapse of years, the mismanagement and other causes which had weighed down the settlers

in Western Australia, had been swept away; and in 1839 an ameliorated system began to be introduced, the energies and resources of the colony were allowed to unfold and develope themselves, and a period of colonial prosperity commenced, which bids fair, if not again checked, to run as rapid and astonishing a career as it has done in South Australia and Port Phillip.

These changes were not unmarked by the Overlanders—those symptoms of uneasiness which always precede new eras of events, began to exhibit themselves at both ends of the proposed line of communication. My official situation enabled me greatly to forward these, and all persons who landed at the Sound on their passage to South Australia, recognised the advantages to be derived from shipping stock to it from Adelaide, and thus avoiding the passage to Swan River, round Cape Leeuwin; these persons carried numerous representations to this effect to some of the principal stock-proprietors of South Australia; and at the same time, Dr. Harris, one of the oldest and most adventurous of the Swan River settlers, drove a flock of sheep overland from King George's Sound to the inland districts of the Swan River, thus demonstrating the feasibility of this part of the plan. The news of his safe arrival at Swan River had only just reached the Sound, when Mr. Eyre arrived in Princess Royal Harbour, with a vessel laden with sheep; he was followed in a few days by Lieut. Mundy, who came in a larger one, laden with horned stock and sheep; and they immediately despatched another vessel for 1000 more sheep.

Thus was a sort of communication established between the two colonies; but the profits arising from the sale of stock brought in a vessel, were, in a great measure, absorbed by the expenses of transport, and in the winter season the passage is too rough to allow of the risk of shipping stock. Were they driven overland, instead of being transported by sea, horned stock could be sold at about £5 per head, and sheep for 15*s.* per head less. Moreover, the price of the different colonial markets would be equalised, and new settlers in all the colonies would start with an equal chance; whereas, at present, if two settlers, with equal means, go the one to Western and the other to Southern Australia, for every 100 head of horned stock and 100 head of sheep that the settler in Western Australia can buy with his capital, the settler in Southern Australia can buy 200 head of horned cattle and 300 of sheep; this scarcely appears to create so vast a difference between the two as it really does, until we regard the relative position of the two settlers at the end of some given term of years, for instance five; they would then stand thus:

SHEEP.

Western Australia. Settler commencing with 100 Ewes.		*Southern Australia.* Settler commencing with 300 Ewes.	
Ewes	180	Ewes	540
Maiden Ewes	56	Maiden Ewes	168
Wethers	164	Wethers	492
Ewe Lambs	72	Ewe Lambs	216
Wether Lambs	72	Wether Lambs	216
Value about £800	544 Total.	Value £2,400	1632

£2,400 Southern Australia.
800 Western Australia.

£1,600 Balance in favour of Southern Australia.

HORNED CATTLE.

Western Australia. Settler commencing with 100 Cows—amount and value of his Stock at the end of five years.	*Southern Australia.* Commencing with 200 cows —amount and value, &c. at the end of five years.
140 Cows.	280 Cows.
40 3-year old Cows.	80 3-year old.
80 Bullocks.	160 Bullocks.
40 2-year old Heifers.	80 2-year old Heifers.
40 2-year old Steers.	80 2-year old Steers.
57 1-year old Heifers.	114 1-year old Heifers.
57 1-year old Steers.	114 1-year old Steers.
75 Heifer Calves.	150 Heifer Calves.
75 Steer Calves.	150 Steer Calves.
604 Total.	1208 Total.
£6,644 Value.	£13,288 Value.

£13,288
6,644

£6,644 Value in favour of Southern Australia.
1,600

£8,244 Total in favour of Southern Australia.

The rapidity of communication from point to point, has introduced such vast effects in the march of improvement among distant lands, as only eye-witnesses can believe. The merchant in London who lays on a vessel for a certain port, regards the affair as a mere mercantile speculation, but could he trace out the results he effects in their remotest ramifications, he would stand astonished at the changes he produces. With the wizard

wand of commerce, he touches a lone and trackless forest, and at his bidding, cities arise, and the hum and dust of trade collect—away are swept ancient races; antique laws and customs moulder into oblivion. The strong-holds of murder and superstition are cleansed, and the Gospel is preached amongst ignorant and savage men. The ruder languages disappear successively, and the tongue of England alone is heard around.

Such are the ultimate effects of the daily occupations of many men in the City of London, who, seated in a dark and dingy counting-house, in pursuit of gain, form and execute schemes, the eventual tenor and bearing of which are not to enrich themselves but the human race. No doubt amongst the mass are noble minds, who have a perception of the true object of their calling, who feel a just and laudable pride that they are the employers and benefactors of mankind; whose names, even amongst distant hordes of untaught men, pass current, as a security for probity and honour; who write a few lines in London, and move the antipodes; who, within the last fifty years, have either actually erected or laid the stable foundation of six great empires, offsets of that strong nation, who, together with her progeny, is overspreading the earth, not by the sword, but by the gentle arts of peace and beneficence.

In the earlier Colonies, founded by the great maritime powers of the world, national hatred prevailed to a great degree, although war existed not

between the parent states: still, at distant points, removed from the immediate control of the law, the hatred of races found vent, cruelties were committed, reprisals took place, and Europeans warred one upon another. But England and America, as they progress in these regions, spread a common language and a common faith, and no national antipathies can be strictly said to exist between them.

The Americans, who are decidedly a more enterprising mercantile people than ourselves, have almost engrossed the profits of the seas surrounding the Indian Archipelago, and the Western and South-western portions of New Holland. Their vessels in these parts are to ours in the ratio of at least ten to one. They constantly frequent the out-stations of Western Australia; supply the wants of those retired portions of the world, and where, legitimately, the British manufacturer should command the market, little besides the produce of America is to be seen. The settlers at these stations derive the largest portions of their supplies from the American whalers, who give them in exchange for potatoes and vegetables—and this species of barter is so profitable to both parties, that it would be impossible to prevent it, (nay the attempt would be cruel,) by any other means than by inducing British whalers and merchant-vessels to secure some portion of those advantages, which are at present wholly monopolized by others.

The masters of the American whalers participate in a great degree in the feelings of the out-settlers;

from the impressions generated in their infancy, they are disposed to look with a fraternal eye upon the few adventurous spirits, who have located themselves far from their fellow men to reclaim a home from the wilderness—they have seen, lived amongst, and shared the benefits, which result from such commencements, and it is not therefore to be wondered at, that at all the out-stations the most friendly relations exist between the settlers and the American whalers; and when, during the five months of the bay whaling season, an American vessel lays at anchor in some bay, where there are one or two settlers' families, a constant exchange of mutual acts of kindness takes place, equally creditable to both parties; whence result friendship, and perhaps an intermarriage;—and when the period of the vessel's sailing arrives there are numerous deserters from her crew, who readily find employment at the different sheep stations.

Thus, a species of emigration, of which nothing is known in England, takes place in the colonies. Men, from the force of poverty, from the desire of gain, or of founding a family and property in a new land, or for some other reason, quit their homes, and enter another portion of the globe. There they find many, who having, in the commencement of a settlement, realized the largest profits, are discontented with the per centage they can now gain upon their capital; and what to the new comer appears to be a highly remunerating return they despise; gladly, therefore, do they dispose of every thing to

the new emigrants, and animated by that restless spirit of adventure, which is common to all first settlers, away they start for the last new colony or for unsettled lands—New Zealand,—the Sandwich Islands, —the Indian Archipelago—it matters not which—a fresh field of speculation has been opened, the tide of emigration from Europe seems to be setting towards a certain quarter, where there are numerous new arrivals, who can never compete with old and practised colonists. He, who has seen several cities rise, can judge to a nicety, from local circumstances, upon what site the capital of the new province must be built; and in the same way he can foresee which must become the business street, and hence knows exactly the relative value of every acre of land in the province. In vain for him are reports spread that the capital is to be built in such or such a spot, he but encourages them; in the meantime rapidly and noiselessly his purchases are made, and a fresh acquisition of fortune secured.

This class of men, amongst whom are many Overlanders, are never satisfied or settled; they are constantly engaged in contemplating changes in the prosperity of colonies, and means of enriching themselves, they positively disregard personal comfort, and a restless spirit of activity and love of change animates them wholly. In these respects there is a great similarity of character between them and the Americans, and it is inconceivable in how short a period of time such a change is brought about.

THE ABORIGINES.

CHAPTER IX.

NATIVE LANGUAGE.

RADICALLY THE SAME THROUGHOUT THE CONTINENT—CAUSES OF A CONTRARY OPINION—DIFFERENCE OF DIALECTS—EXAMPLES—CAUSES OF ERROR IN FORMER ENQUIRERS.

In the preceding narrative of my Expeditions, I have occasionally introduced some casual incidents relating to the manners and social condition of the natives of Australia, a race generally considered to occupy too low a position in the scale of humanity to be worthy of any peculiar regard. In the following pages, I shall bring together such observations as my intercourse with them enabled me to collect; arranging my remarks under the heads of Language, traditional or customary Laws, and social Habits and Manners; and to these I shall add some desultory anecdotes, illustrative of their superstitions, and of some other peculiarities of thought and action; and shall conclude with a short review of the influence that the settlement of Europeans among them has, or is likely to have, on their condition.

It has hitherto been very generally believed that the languages spoken in different portions of the continent of Australia are radically distinct; and as such a circumstance, were it really the case, would tend to prove that its inhabitants

originated from several separate races, it becomes rather an important matter to set this question at rest, and to endeavour to shew from what cause so erroneous an opinion originated.

The arguments which prove that all the Australian dialects have a common root are,—

1st. A general similarity of sound and structure of words in the different portions of Australia, as far as yet ascertained;

2nd. The recurrence of the same word with the same signification, to be traced, in many instances, round the entire continent, but undergoing, of course, in so vast an extent of country, various modifications;

3rd. The same names of natives occurring frequently at totally opposite portions of the continent. Now, in all parts of it which are known to Europeans, it is ascertained that the natives name their children from any remarkable circumstance which may occur soon after their birth; such being the case, an accordance of the names of natives is a proof of a similarity of dialect.

The chief cause of the misapprehension which has so long existed with regard to the point under consideration, is that the language of the aborigines of Australia abounds in synonymes, many of which are, for a time, altogether local; so that, for instance, the inhabitants of a particular district will use one word for water, whilst those of a neighbouring district will apply another, which appears to be a totally different one. But when I found out that in such instances

as these both tribes understood the words which either made use of, and merely employed another one, from temporary fashion and caprice, I felt convinced that the language generally spoken to Europeans by the natives of any one small district could not be considered as a fair specimen of the general language of that part of Australia, and therefore in the vocabulary which I compiled in Western Australia, I introduced words collected from a very extensive tract of country.

Again,—in getting the names of the parts of the body, &c. from the natives, many causes of error arise; for they have names for almost every minute portion of the human frame: thus, in asking the name for the arm, one stranger would get the name for the upper arm, another for the lower arm, another for the right arm, another for the left arm, &c.; and it therefore seems most probable that in the earlier stages of the inquiry into the nature of the language of this people, these circumstances contributed mainly to the erroneous conclusion, that languages radically different were spoken in remote parts of the continent.

One singularity in the dialects spoken by the aborigines in different portions of Australia is, that those of districts widely removed from one another, sometimes assimilate very closely, whilst the dialects spoken in the intermediate ones differ considerably from either of them. The same circumstances take place with regard to their rites and customs; but as this appears rather to be-

long to the question, of the means by which this race was distributed over so extensive a tract of country, I will not now enter into it, but merely adduce sufficient evidence to prove that a language radically the same, is spoken over the whole continent.

If, then, we start from Perth, in Western Australia, following the coast, in a southerly direction, it will be found, that between Perth and King George's Sound, a common language is spoken, made up of several dialects, scarcely differing from one another in any material points, and gradually merging into the dialects of these two places, as the points considered are nearer to one or the other.

The principal causes of difference between the dialects of these two places are, 1st, that at King George's Sound, the terminating syllable of all names is dropped; and 2nd, that all verbs, with a very few exceptions, end in "gur," instead of the varying termination which is given to them at Perth. Any person who can speak the Perth dialect will, by observing these two rules, be able to converse freely with the natives of King George's Sound.

Examples to illustrate this difference of dialects.

ENGLISH.	SWAN RIVER.	K. GEORGE'S SOUND.
The head.	Kat-ta.	Kat.
The skin.	Mat-ta.	Mat.
The throwing stick.	Meer-ra.	Meer.
Good.	Gwab-ba.	Gwab.
To beat.	Booma.	Bomgur.
To eat.	Ngannow.	Nangur.

From these examples, it will be seen that the King George's Sound dialect is the simplest of the

two; and indeed, I am inclined to believe that the dialect there spoken is more simple than that in use at any other portion of the continent.

If we now proceed to Adelaide, in South Australia, we still find the same language spoken, but the dialect here is considerably softened; the hard *g* of Perth is exchanged for *k*, and *b* becomes *p* and *w*. Many of the nouns take "anga" as a termination, and the verbs take "andi" and "endi." This addition of soft terminations, and a general sweetness of sound, appear to be the peculiar characteristics of the Adelaide dialect. No large vocabulary of this language has yet been published, but one-eighth of the words known as belonging to the Perth dialect, have been found also in that of Adelaide; we may therefore fairly conclude, that when the latter language is better known, a still greater degree of identity will be found to exist.

Natives from several parts of the Murray, and Murrumbidgee, and from Port Phillip have been brought into communication with natives from King George's Sound, scanty vocabularies from some of these points are also extant, and the amount of evidence thus gained clearly establishes that the several dialects are all derived from a common root.

The labours of Mr. Threlkeld in the vicinity of Hunter's River, and Lake Macquarie, enable us to compare the language of that portion of Australia, with those of the other points which we have just considered, and the result of this comparison also shews that the languages are radically the same.

The following Tables will give a sufficient number of words, common to those four dialects, to shew the degree of similarity which exists among them.

I.—SUBSTANTIVES.

English.	Swan River.	King George's Sound.	South Australia.	Sydney.
The throwing stick	Meerra	Meer	Meedlah	Wom-Murrur
Smoke	Booyoo	Poou	Puiyu	Poito.
Water	Kowin	Koin	Kowe	Ko-koin.
Wood	Kalla	Kul	Karla	Kollai.
Dung	Kona, or Konung	Kwon	Kodna	Kona-ring or Konung
The hand	Mara	Murr	Mur-ra	Mutturra.
The ribs	Narra	Narr	. . .	Narra.
The tongue	Tdallung	Tdallung	Tadlanga	Tullun.
The foot	Tjenna	Tjenna	Tidna	Tinna.
The eye	Mail	Mil	Mena	Mael.

II.—VERBS.

To strike	Pooma or Boma	Bombgur	Poomandi	Boon-billiko.
To see, to know	Nago	Nagkur	Nakkondi	Na-killiko.
To give	Yunga	Yungur	Yunggondi	Ngu-killiko.
To blow	Bobun	Bwabun-gur	Boontondi	Bom-billiko.
To fly	Burdang	Burdangutgur	. . .	Burkulliko.
To speak	Wangow	Wangur	Wangondi	Wiryu-yelliko.
To fall	Guardo	Gwartgur	Wordnendi	
To dung	Kona	Kwangur	Kudnatendi.	
To be ailing	Ngandyne	Ngandynegur	Ngandandi	
To penetrate.	Taan	Taangur	Tanandi	
To fear	Wyaine	Wyainegur	Waianendi	
To call aloud.	Meerow	Murrangur	Murkandi	Marong-koiyelliko.
To dig, or scrape	Pean or Bean	Pingur	. . .	Pirilliko.
To move quickly	Yarragil	Yarragil	. . .	Yarul kulliko
To tear	Jirran	Yirrangur	Yirrurendi	Yirir-kulliko.
To struggle	Waubbow	Wauppur	. . .	Waipil-liko.
To depart	Watto	Wat	. . .	Waita.
To walk or go.	Yanna	Yan	. . .	Yan.

Now before proceeding farther, and thus entering upon ground which is very little known, there are several important circumstances worthy of consideration. In the vast extent of country, which is comprised between the points embraced in these tables, it was to have been expected, that very great variations of dialect would have been found. —If we only reflect upon the differences of dialect existing between the several counties of England, so limited in extent—how much greater were the variations to have been reasonably anticipated in a country between two and three thousand miles across, where an unwritten language is in use, and where no communication whatever, takes place between the inhabitants of distant portions: moreover, in this great extent, the vegetation becomes totally different; birds, reptiles, and quadrupeds, inhabit one portion of the continent, which are unknown in another, and external nature altogether changes. Under these circumstances many new words must have been invented, and new terms must constantly have been introduced as the population spread across the country, and as those who were constantly pushing on from the outskirts of the inhabited parts, ceased to communicate with the districts which had been first peopled, these changes must have been unknown to the original inhabitants of the continent, and to those of their descendants who successively inhabited their territory.

If, for instance, this country was first peopled from the north or the tropical parts, the most remote

inhabitants of the southern portions must have invented terms for snow, ice, hail, intense cold, &c. as well as for every tree and bird, for every fish and reptile, and for every insect; all the compound and comparative terms derived from these, as well as the original words, we ought therefore to expect to find totally different in the languages of the north and south, of the east and west; and from whatever portion of the continent we imagine the first inhabitants to have proceeded the same reasoning holds good.

But personal terms, such as the parts of the body, the pronouns, &c. and also verbs describing ordinary actions, ought not to be expected to vary in the same degree; and we shall accordingly find that it is chiefly in words of these and similar classes that the greatest degree of resemblance is found to exist. With regard to the pronouns this is very remarkable. In the singular, plural and dual numbers they almost coincide in Western Australia, South Australia, and Sydney. The following table of the pronouns as used in those places will shew this :—

WESTERN AUSTRALIA.	NEW SOUTH WALES.	SOUTH AUSTRALIA.
Nganya	Ngatoa	Ngaü
Nginnee	Ngintoa	Ninna
Bal		Ba
Ngalee	Ngalin	Ngadli
Nurang	Nura	Niwa
Boola	Bulo-ara	Burla
Nadjoo		Ngaidjo
Nimedoo		Nindo
Ngando	Nganto	Ngando
Ngannee	Ngan	Nganna
Ngauno	Nganbo	Ngangko

To those who have not considered this circumstance, languages have frequently appeared to be quite different which in reality are closely assimilated. Two instances will explain my meaning. The natives in the vicinity of Perth generally use the word *gab-by*, or *kuyp-e*, for water, but those inhabiting a district only twelve or fourteen miles distant from Perth adopt the word *kow-win;* the word used by the natives in the vicinity of Adelaide, in South Australia, for water is *kauw-ee.* Now, on comparing these words it might have been hastily concluded that the languages of West and South Australia were without affinity; but in fact the variation does not constitute any essential difference, for, considering the interchangeable nature of the consonants *b*, *p*, and *w*, and of *g* and *k*, which affect different dialects, we shall find the words *gab-by*, *kuyp-e*, *kow-win* and *kauw-ee* to be only different forms from one root. One instance of another kind may be given. The word for the sun at Perth is *nganga*, whilst at Adelaide it is *tin-dee;* but the word used by the natives at Encounter Bay, South Australia, thirty-six miles from Adelaide, is *ngon-ge*, and the word used in the southern districts of Western Australia for the stars is *tiendee:* thus by extending the vocabularies of the two places the identity of the language is shewn.

Up to the present time we have had only very meagre vocabularies, collected by passing strangers, each of whom adopted his own system of orthography, and the comparisons formed from such

compilations must necessarily have been erroneous in the highest degree. Moreover in many instances these strangers were grossly imposed upon. One gentleman published a vocabulary of the King George's Sound dialect, which has been largely quoted from by other writers; in this, the numerals as high as ten are given, although the natives only count to four; and the translations of some words which he has put down as numbers are very humorous, such as,—What do you mean? Get out, &c.

Many words spoken by the natives at Sharks Bay are the same as those used by the natives at Perth, and the dialect in use in the Province of Victoria appears very nearly to assimilate to the latter, as is shewn in the extracts from Mr. Moore's journal at page 120. Having thus traced the entire of the coast-line of the continent of Australia, it appears that a language the same in root is spoken throughout this vast extent of country; and from the general agreement in this as well as in personal appearance, rites, and ceremonies, we may fairly infer a community of origin for the aborigines. This being admitted, two other questions will arise.

How were they disseminated over the continent? and

At what period, and from what quarter, did they arrive upon it?

CHAPTER X.

THEIR TRADITIONAL LAWS.

ERRORS OF THEORETICAL WRITERS REGARDING THE SAVAGE STATE—COMPLEX LAWS OF SAVAGE LIFE—CONSIDERATIONS ON THEIR ORIGIN.

No question has, in as far as I can apprehend the subject, been so utterly misunderstood and misrepresented, as the one relating to the customs and traditional laws of savage races. Deistical writers, and philosophers of great note but small experience, have built up whole theories, and have either overturned, or striven to overturn, ancient faiths and wholesome laws, by arguments deduced, in the first instance, from the consideration of man in his simple or savage state; and from false premises they have deduced, logically, argument from argument, until even the most unwilling have begun to doubt. But to believe that man in a savage state is endowed with freedom either of thought or action is erroneous in the highest degree. He is in reality subjected to complex laws, which not only deprive him of all free agency of thought, but, at the same time by allowing no scope whatever for the development of intellect, benevolence, or any other great moral qualification, they necessarily bind him down in a hopeless state of barbarism, from which it is impossible for man to emerge, so long as he is

enthralled by these customs; which, on the other hand, are so ingeniously devised, as to have a direct tendency to annihilate any effort that is made to overthrow them.

This people reject, in practice, all idea of the equality of persons or classes; they make, indeed, no verbal distinctions upon this point, and if asked, were all men equal? they would be unable to comprehend the question; but there is no race that imposes more irksome restraints upon certain classes of the community.

The whole tendency of their superstitions and traditional regulations, is to produce the effect of depriving certain classes of benefits which are enjoyed by others; and this monopolizing of advantages often possesses, amongst savages, many characteristics which violate all the holier feelings of our nature, and excite a disgust, of which it is divested in civilized life. In the latter case we see certain privileges even hereditarily enjoyed; but the weak and strong, the rich and poor, the young and old have paths of honourable ambition laid open to them, by entering on which they can gain like immunities. While in the savage condition we find the female sex, the young, and the weak, condemned to a hopeless state of degradation, and to a lasting deprivation of particular advantages, merely because they are defenceless; and what they are deprived of is given to others, merely because they are old or strong: and this is not effected by personal violence, depending upon momentary caprice

and individual disposition, (in which case it might be considered as the consequence of a state of equality;) but it is enforced upon the natives of Australia by traditional laws and customs, which are by them considered as valid and binding as our laws are by us.

The laws and customs alluded to cannot be considered as mere local institutions, for travellers and residents, in the northern provinces of the colony of New South Wales, describe, as existing there, usages nearly identical with those which regulate the proceedings of the natives occupying the west of the continent,—and these testimonies cannot be doubted, for they are incidentally introduced, without any theoretical bias, and in ignorance of the conformity they tend to prove. Natives from the country about the Murrumbidgee, have described to me Australian customs as being in force there, which exhibit the same accordance with those I found in the west; and I have myself ascertained their existence on several other portions of the continent. But it is remarkable that although so many persons have described isolated customs of this people, that no one has yet taken the trouble to digest them into one mass, and to exhibit them in the aggregate, so that an inference might be drawn as to how far the state in which the natives of Australia are at present found, is caused by the institutions to which they are subjected.

We find then, in Australia, the remarkable fact that the inhabitants of a tract of country nearly two

thousand miles in breadth, are governed by the same institutions: and what renders this more singular is, that the people submitted to them are not subjected by written rules of faith, which the chiefs of each race may interpret and modify according to their will; as is the case with those who are governed by the Koran or other similar codes; but in this instance mere oral traditions are handed down, which teach that certain rules of conduct are to be observed under certain penalties, and without the aid of fixed records, or the intervention of a succession of authorized depositaries and expounders, these laws have been transmitted from father to son, through unknown generations, and are fixed in the minds of the people as sacred and unalterable.

One common mode of argument among deistical writers, is to imagine barbarous man let loose upon the earth, without undergoing any previous preparation for the scene upon which he was about to enter; and they then trace out how urged on by his necessities, and aided by his senses, he successively discovered the natural productions necessary for his subsistence, and the arts which ministered to his wants, until step by step he mounted to the pinnacle of civilization. But these are merely reveries of the closet,—dreams of the inexperienced,—and have no real foundation, in as far at least as Australia is concerned. That the first natives who were placed on that continent must have been instructed how to provide for their wants, how to form weapons suited to their circumstances, how to select

roots, and to capture animals fitted for food, has been demonstrated over and over again, but at no time more forcibly than when the portion of my party, under Mr. Walker, were coming overland from Gantheaume Bay to Perth. In this case, six full-grown men, provided with knives, fishing-hooks and lines, a kettle, vessels to hold water and cook their food, arms, and a small quantity of ammunition, and many of them possessing considerable experience in the bush, must all have perished from hunger had not timely assistance reached them; and this from their ignorance as to which of the productions surrounding them would serve to support life, and not from neglect in making the requisite experiments to endeavour to ascertain this, for the poor fellows ate every thing they could find which appeared to afford sustenance; yet notwithstanding all the comparative advantages they were in possession of, if the relief sent from Perth had not reached them, death must have overtaken all. The same result has frequently occurred under nearly similar circumstances. If then men, full-grown, in the complete possession of all their faculties, provided with fire and many useful implements, and aided by considerable experience,—from ignorance of the natural productions of a country, and the means of procuring these, die from hunger ere they can learn how to supply their wants, is it probable that an unarmed, naked, untaught man, who knew not even how to make his senses act in concert, until he had from experience acquired this knowledge, could by any possibility have avoided a

fate, which would inevitably overtake the European in possession of all his superior energies of mind and character, if he chance not to fall in with friendly natives.

The laws of this people are unfitted for the government of a single isolated family, some of them being only adapted for the regulation of an assemblage of families; they could, therefore, not have been a series of rules given by the first father to his children: again, they could not have been rules given by an assembly of the first fathers to their children, for there are these remarkable features about them, that some are of such a nature as to compel those subject to them to remain in a state of barbarism, whilst others are adapted to the wants and necessities of savage *races*, as well as to prevent too close intermarriages of a people, who preserve no written or symbolical records of any kind; and in all these instances the desired ends are obtained by the simplest means, so that we are necessitated to admit that when these rules were planned, it was foreseen that the race submitted to them would be savages, and under this foresight the necessary provision was made for the event.

We cannot argue that this race was originally in a state of civilization, and that from the introduction of certain laws amongst them, the tendency of which was to reduce them to a state of barbarism, or from some other cause, they had gradually sunk to their present condition; for in that case, how could those laws which provide solely for the necessities of a

people in their present state, have been introduced amongst them? Neither could they have been invented according to necessities and emergencies which a savage state has produced, for under such circumstances it is impossible that they could have been promulgated and enforced throughout so wide a range of country, and amongst a dispersed race of barbarians of such a variety of dispositions, who acknowledge no chief or lawgiver, and are so characteristically impatient of restraint.

Without in this place attempting to form and to support any theories founded upon the views I have just put forward, I may state my impression that it would seem, from the laws and customs of the natives of Australia, to have been willed that this people should until a certain period remain in their present condition, which is consequently not the result of mere accident, or of the natural constitution of man. From the peculiar nature of their institutions, it was impossible that they could emerge from a state of barbarism whilst these remained in force, and from the tenacity and undeviating strictness with which they are retained, and the strong power they hold over the savage mind, it seems equally impossible that they could have been abrogated, or even altered, until the race subjected to them came into contact with a civilized community, whose presence might exercise a new influence, under which the ancient system would expire or be swept away.

We may, I think, fairly produce this as a proof,

that the progress of civilization over the earth has been directed, set bounds to, and regulated by certain laws, framed by Infinite wisdom; and although such views may by some be deemed visionary, I feel some confidence that these laws are as certain and definite as those which control the movements of the heavenly bodies. I believe, moreover, that they are capable, in some degree, of being studied and reduced to order, although no attempt to do so has hitherto been made; and the institutions of barbarous races, their probable origin, the effects they have upon the people submitted to them, the evidences of design which they contain, and other similar questions, are those points to which in this enquiry attention should be particularly directed.

The progress of events, and the rapid march of science in our country are very wonderful, but the progress of events in the eastern hemisphere at the present moment is still more amazing: Christianity and civilization are marching over the world with a rapidity not fully known or estimated by any one nation; the English are scarcely aware what has been effected by their own missionaries and commerce, and they are utterly ignorant of what has been already done, and is now doing, by the Americans, Dutch, and Portuguese.

CHAPTER XI.

LAWS OF RELATIONSHIP, MARRIAGE, AND INHERITANCE.

RELATIONSHIP AND MARRIAGE—DIVISION OF FAMILIES—LAW OF MARRIAGE—COINCIDENT INSTITUTIONS AMONGST THE NORTH AMERICAN INDIANS—ORIGIN OF FAMILY NAMES—SECOND COINCIDENCE—BETROTHMENTS—WIDOWS—OBLIGATIONS OF RELATIONSHIP—DIFFICULTY OF PURSUING THE ENQUIRY—PROPERTY VESTED IN INDIVIDUALS—UNIVERSALITY OF THIS CUSTOM—LINE OF INHERITANCE—CERTAIN LAWS REGARDING FOOD.

Traditional Laws of Relationship and Marriage.—ONE of the most remarkable facts connected with the natives, is that they are divided into certain great families, all the members of which bear the same names, as a family, or second name: the principal branches of these families, so far as I have been able to ascertain, are the

Ballaroke
Tdondarup
Ngotak
Nagarnook
Nogonyuk
Mongalung
Narrangur.

But in different districts the members of these families give a local name to the one to which they belong, which is understood in that district, to indicate some particular branch of the principal family. The most common local names are,

Dĭdaroke
Gwerrinjoke
Maleoke
Waddaroke
Djekoke
Kotejumeno
Namyungo
Yungaree.

These family names are common over a great portion of the continent; for instance, on the Western coast, in a tract of country extending between four and five hundred miles in latitude, members of all these families are found. In South Australia, I met a man who said that he belonged to one of them, and Captain Flinders mentions Yungaree, as the name of a native in the gulf of Carpentaria.

These family names are perpetuated, and spread through the country, by the operation of two remarkable laws:—

1st. That children of either sex, always take the family name of their mother.

2nd. That a man cannot marry a woman of his own family name.

But not the least singular circumstance connected with these institutions, is their coincidence with those

of the North American Indians, which are thus stated in the Archæologia Americana.*

"Independent of political or geographical divisions, that into families or clans has been established from time immemorial. At what time, and in what manner, the division was first made is not known. At present, or till very lately, every nation was divided into a number of clans, varying in the several nations from three to eight or ten, the members of which respectively were dispersed indiscriminately throughout the whole nation. It has been fully ascertained, that the inviolable regulations, by which those clans were perpetuated amongst the southern nations, were, first, that no man could marry in his own clan; secondly, that every child belongs to his or her mother's clan. Among the Choctaws, there are two great divisions, each of which is subdivided into four clans, and no man can marry in any of the four clans belonging to his division. The restriction among the Cherokees, the Creeks, and the Natches, does not extend beyond the clan to which the man belongs.

"There are sufficient proofs, that the same division into clans, commonly called tribes, exists among almost all the other Indian nations. But it is not so clear that they are subject to the same regulations, which prevail amongst the southern Indians."

A similar law of consanguinity seems to be inferred in Abraham's reply to Abimelech. (Genesis,

* Vol. 2, page 109.

xx. 12.) "And yet indeed she is my sister; she is the daughter of my father, but not the daughter of my mother, and she became my wife."

The origin of these family names is attributed by the natives to different causes, but I think that enough is not yet known on the subject, to enable us to form an accurate opinion on this point—one origin frequently assigned by the natives is, that they were derived from some vegetable or animal being very common in the district which the family inhabited, and that hence the name of this animal or vegetable became applied to the family. I have in my published vocabulary of the native language, under each family name, given its derivations, as far as I could collect them from the statements of the natives.

But as each family adopts some animal or vegetable, as their crest or sign, or *Kobong*, as they call it, I imagine it more likely, that these have been named after the families, than that the families have been named after them.

A certain mysterious connection exists between a family and its *kobong*, so that a member of the family will never kill an animal of the species, to which his *kobong* belongs, should he find it asleep; indeed he always kills it reluctantly, and never without affording it a chance to escape. This arises from the family belief, that some one individual of the species is their nearest friend, to kill whom would be a great crime, and to be carefully avoided. Similarly, a native who has a vegetable

for his *kobong*, may not gather it under certain circumstances, and at a particular period of the year. The North American Indians have this same custom of taking some animal as their sign. Thus it is stated in the Archæologia Americana,* "Each tribe has the name of some animal. Among the Hurons, the first tribe is that of the bear; the two others of the wolf and turtle. The Iroquois nation has the same divisions, only the turtle family is divided into two, the great and the little." And again, in speaking of the Sioux tribes:†—"Each of these derives its name from some animal, part of an animal, or other substance, which is considered as the peculiar sacred object or *medicine*, as the Canadians call it, of each band respectively." To this we may add the testimony of John Long, who says,‡ "one part of the religious superstition of the savages consists in each of them having his *totam*, or favourite spirit, which he believes watches over him. This *totam* they conceive assumes the shape of some beast or other, and therefore they never kill, hunt, or eat the animal whose form they think the *totam* bears."

Civilized nations, in their heraldic bearings, preserve traces of the same custom.

Female children are always betrothed, within a few days after their birth; and from the moment they are betrothed, the parents cease to have any

* Vol. 2, p. 109, quoting from Charlevoix, vol. 3, p. 266.

† Ibid. p. 110, quoting from Major Long's Exp. vol. i. ch. 15.

‡ Voyages and Travels, p. 86.

control over the future settlement of their child. Should the first husband die, before the girl has attained the years of puberty, she then belongs to his heir.

A girl lives with her husband at any age she pleases, no control whatever is in this way placed upon her inclinations.

When a native dies, his brother inherits his wives and children, but his brother must be of the same family name as himself. The widow goes to her second husband's hut, three days after the death of her first.

The old men manage to keep the females a good deal amongst themselves, giving their daughters to one another, and the more female children they have, the greater chance have they of getting another wife, by this sort of exchange; but the women have generally some favourite amongst the young men, always looking forward to be his wife at the death of her husband.

But a most remarkable law is that which obliges families connected by blood upon the female side, to join for the purpose of defence and avenging crimes; and as the father marries several wives, and very often all of different families, his children are repeatedly all divided amongst themselves; no common bond of union exists between them, and this custom alone would be sufficient to prevent this people ever emerging from the savage state.

As their laws are principally made up of sets

of obligations due from members of the same great family towards one another,—which obligations of family names are much stronger than those of blood,—it is evident that a vast influence upon the manners and state of this people must be brought about by this arrangement into classes. I therefore devoted a great portion of my attention to this point, but the mass of materials I have collected is so large, that it would occupy much more time to arrange it, than I have been able to spare, so as to do full justice to the subject; but in order to give an accurate idea of the nature of the enquiries I pursued, I have given in the Appendix (A) a short genealogical list, which will show the manner in which a native gives birth to a progeny of a totally different family name to himself; so that a district of country never remains for two successive generations in the same family. These observations, as well as others made with regard to the natives, can be only considered to apply, as yet, to that portion of Western Australia lying between the 30th and 35th parallels of s. lat. unless the contrary is expressly stated; though I think there is strong reason to suppose that they will, in general, be found to obtain throughout the continent.

It is impossible for any person, not well acquainted with the language of the natives, and who does not possess great personal influence over them, to pursue an inquiry of this nature; for one of the customs most rigidly observed and enforced amongst

them is, never to mention the name of a deceased person, male or female. In an inquiry, therefore, which principally turns upon the names of their ancestors, this prejudice must be every moment violated, and a very great difficulty has thus to be encountered in the outset. The only circumstance which at all enabled me to overcome this was, that the longer a person has been dead the less repugnance do they evince in uttering his name. I, therefore, in the first instance, endeavoured to ascertain only the oldest names on record; and on subsequent occasions, when I found a native alone, and in a loquacious humour, I succeeded in filling up some of the blanks. Occasionally, round their fires at night, I managed to involve them in disputes regarding their ancestors, and, on these occasions, gleaned much of the information of which I was in want.

Traditional Laws relative to Landed Property.—Landed property does not belong to a tribe, or to several families, but to a single male; and the limits of his property are so accurately defined that every native knows those of his own land, and can point out the various objects which mark his boundary. I cannot establish the fact and the universality of this institution better than by the following letter addressed by Dr. Lang, the Principal of Sydney College, New South Wales, to Dr. Hodgkin, the zealous advocate of the Aboriginal Races :*

* Extracted from the Reports of the Aboriginal Protection Society.

"*Liverpool, 15th Nov.* 1840.

"MY DEAR FRIEND,—In reply to the question which you proposed to me some time ago, in the course of conversation in London, and of which you have reminded me in the letter I had the pleasure of receiving from you yesterday, with the pamphlets and letters for America, viz.—'Whether the Aborigines of the Australian continent have any idea of property in land,' I beg to answer most decidedly in the affirmative. It is well known that these Aborigines in no instance cultivate the soil, but subsist entirely by hunting and fishing, and on the wild roots they find in certain localities (especially the common fern), with occasionally a little wild honey; indigenous fruits being exceedingly rare. The whole race is divided into tribes, more or less numerous, according to circumstances, and designated from the localities they inhabit; for although universally a wandering race, with respect to places of habitation, their wanderings are circumscribed by certain well-defined limits, beyond which they seldom pass, except for purposes of war or festivity. In short, every tribe has its own district, the boundaries of which are well known to the natives generally; and within that district all the wild animals are considered as much the property of the tribe inhabiting, or rather ranging on, its whole extent, as the flocks of sheep and herds of cattle, that have been introduced into the country by adventurous Europeans, are held by European law and usage the property of their respective owners. In fact,

as the country is occupied chiefly for pastoral purposes, the difference between the Aboriginal and the European ideas of property in the soil is more imaginary than real, the native grass affording subsistence to the kangaroos of the natives, as well as to the wild cattle of the Europeans, and the only difference indeed being, that the former are not branded with a particular mark like the latter, and are somewhat wilder and more difficult to catch. Nay, as the European regards the intrusion of any other white man upon the *cattle-run*, of which European law and usage have made him the possessor, and gets it punished as a trespass, the Aborigines of the particular tribe inhabiting a particular district, regard the intrusion of any other tribe of Aborigines upon that district, for the purposes of kangaroo hunting, &c. as an intrusion, to be resisted and punished by force of arms. In short, this is the frequent cause of Aboriginal, as it is of European wars; man, in his natural state, being very much alike in all conditions—jealous of his rights, and exceedingly pugnacious. It is true, the European intruders pay no respect to these Aboriginal divisions of the territory, the black native being often hunted off his own ground, or destroyed by European violence, dissipation, or disease, just as his kangaroos are driven off that ground by the European's black cattle; but this surely does not alter the case as to the right of the Aborigines.

"But particular districts are not merely the property of particular tribes; particular sections or portions of these districts are universally recognised

by the natives as the property of individual members of these tribes; and when the owner of such a section or portion of territory (as I ascertained was the case at King George's Island) has determined on burning off the grass on his land, which is done for the double purpose of enabling the natives to take the older animals more easily, and to provide a new crop of sweeter grass for the rising generation of the forest, not only all the other individuals of his own tribe, but whole tribes from other districts, are invited to the hunting party and the feast and dance, or corrobory that ensue; the wild animals on the ground being all considered the property of the owner of the land. I have often heard natives myself tell me, in answer to my own questions on the subject, who were the Aboriginal owners of particular tracts of land now held by Europeans; and indeed this idea of property in the soil, *for hunting purposes*, is universal among the Aborigines. They seldom complain of the intrusion of Europeans; on the contrary, they are pleased at their *sitting down*, as they call it, on their land: they do not perceive that their own circumstances are thereby sadly altered for the worse in most cases; that their means of subsistence are gradually more and more limited, and their numbers rapidly diminished: in short, in the simplicity of their hearts, they take the frozen adder in their bosom, and it stings them to death. They look for a benefit or blessing from European intercourse, and it becomes their ruin.

"If I had had a little more leisure I would have written more at length, and in a style more worthy

of your perusal; but you may take it as certain, at all events, that the Aborigines of Australia *have* an idea of property in the soil in their native and original state, and that that idea is, in reality, not very different from that of the European proprietors of sheep and cattle, by whom they have, in so many instances been dispossessed, without the slightest consideration of their rights or feelings.

"Indeed, the infinity of the native names of places, all of which are descriptive and appropriate, is of itself a *prima facie* evidence of their having strong ideas of property in the soil; for it is only where such ideas are entertained and acted on, that we find, as is certainly the case in Australia, *Nullum sine nomine saxum.*

"I am, my dear Friend,

"Your's very sincerely,

"JOHN DUNMORE LANG.

"To Dr. Hodgkin."

A father divides his land during his lifetime, fairly apportioning it amongst his several sons, and at as early an age as fourteen or fifteen they can point out the portion which they are eventually to inherit.

If the males of a family become extinct, the male children of the daughters inherit their grandfather's land.

The punishment of "trespass for the purpose of hunting," is invariably death, if taken in the fact, and at the very least an obstinate contest ensues. If the trespasser is not taken in the fact, but is recognised from his footmarks, or from any

other circumstance, and is ever caught in a defenceless state, he is probably killed; but if he appears attended by his friends he is speared through the thigh, in a manner which will be mentioned under the head of punishments.

There are other laws intended for the preservation of food, such as that which enjoins that—

1. No vegetable production used by the natives as food should be plucked or gathered when bearing seed.

2. That certain classes of natives should not eat particular articles of food; this restriction being tantamount to game laws, which preserve certain choice and scarce articles of food from being so generally destroyed as those which are more abundant.

3. The law regarding the family *kobongs*, mentioned in page 228.

Independent of these laws, there are certain articles of food which they reject in one portion of the continent and which are eaten in another; and that this rejection does not arise from the noxious qualities of the article is plain, for it is sometimes not only of an innocent nature, but both palatable and nutritious: I may take for example, the *unio*, which the natives of South-west Australia will not eat, because, according to a tradition, a long time ago some natives ate them, and died through the agency of certain sorcerers who looked upon that shell-fish as their peculiar property.

CHAPTER XII.

CRIMES AND PUNISHMENTS.

SUPERSTITIOUS REVENGE OF NATURAL DEATH—MURDER—STEALING A WIFE—BREACH OF MARRIAGE LAWS—IMPLICATION OF A MURDERER'S FAMILY IN HIS CRIME—ORDEAL AND PUNISHMENT FOR OTHER TRANSGRESSIONS.

Laws relative to Deaths and Punishments.—THE natives do not allow that there is such a thing as a death from natural causes; they believe, that were it not for murderers or the malignity of sorcerers, they might live for ever: hence,

When a native dies from the effect of an accident, or from some natural cause, they use a variety of superstitious ceremonies, to ascertain in what direction the sorcerer lives, whose evil practices have brought about the death of their relative; this point being satisfactorily settled by friendly sorcerers, they then attach the crime to some individual, and the funeral obsequies are scarcely concluded, ere they start to avenge their supposed wrongs.

If a native is slain by another wilfully, they kill the murderer, or any of his friends they can lay hands on.

If a native kills another accidentally, he is punished according to the circumstances of the case; for instance, if, in inflicting spear wounds as a punish-

ment for some offence, one of the agents should spear the culprit through the thigh, and accidentally so injure the femoral artery, that he dies, the man who did so would have to submit to be speared through both thighs himself.

The first great principle with regard to punishments is, that all the relatives of a culprit, in the event of his not being found, are implicated in his guilt; if, therefore, the principal cannot be caught, his brother or father will answer nearly as well, and failing these, any other male or female relatives, who may fall into the hands of the avenging party.

When, therefore, it is known among the natives, that any crime which calls for a very heavy measure of punishment has been committed, great and widespread consternation prevails; and when it is further ascertained that the culprit has escaped, every one in the remotest degree connected with him becomes filled with anxiety, for it is impossible to tell in what direction the blow will fall. The brothers of the criminal conceive themselves to be quite as guilty as he is, and only those who are *jee-dyte*, or unconnected with the family of the guilty person, believe themselves in safety. Little children of seven or eight years old, if, whilst playing, they hear that some murder has taken place, can in a moment tell whether or not they are *jee-dyte*, and, even at this tender age, take their measures accordingly.

The moment any great crime has been committed,

those who have witnessed it raise loud cries, which are taken up by more distant natives, and are echoed widely through the woods. The nature of these cries indicates who has been the guilty party, who the sufferer, and those who are *jee-dyte;* whilst those who are involved in the guilt direct one another by their calls to what point to repair and muster their several forces: the culprit and generally his brothers and near relatives seek safety in a precipitate flight.

If a native has been slain, his near male relations give way to the most violent paroxysms of rage, and are forcibly held by their friends to prevent them doing some injury to the bystanders; they then go and confront the body of those who are the relatives of the murderer, and a stormy altercation takes place; this generally, however, is terminated in an amicable way, by the parties uniting to go in search of the culprit. It is obviously the interest of every one that he should be caught and punished; for, until this takes place, the whole of his connexions are in danger.

The holiest duty a native is called on to perform is that of avenging the death of his nearest relation, for it is his peculiar duty to do so: until he has fulfilled this task, he is constantly taunted by the old women; his wives, if he be married, would soon quit him; if he is unmarried, not a single young woman would speak to him; his mother would constantly cry, and lament she should ever have given birth to so degenerate a son; his father would treat him with contempt, and reproaches would constantly be sounded in his ear.

Directly, therefore, the funeral ceremonies have been performed, the avenging parties start in pursuit of the murderer, and follow his footsteps with rapidity and energy fitting so important an occasion; unweariedly and relentlessly they press like blood-hounds upon the track, and perform journies of a great length, with a speed which would scarcely be credited; forgetting, in this instance, their usual caution, they trespass on other natives' ground, and all other passions and feelings appear to be absorbed in a burning thirst for vengeance. They sleep at night upon the track which they had been prevented by the darkness from following further, and with the first pale light of morning pursue it from the same point.

When such energy is displayed, success must of course often follow, and the overtaken criminal then falls, pierced by many spears; but should he elude his pursuers, they wreak their vengeance on any native they meet. The murderer has naturally fled to the land of his friends, to claim their hospitality; sometimes this is afforded him, and sometimes he is treacherously given up to his foes; but should the criminal escape, the pursuing party rarely return from an excursion of this nature without shedding blood: their not finding the guilty individual only inflames still more their anger, which they wreak on children, or any unfortunate individual who may fall into their hands.

Stealing a wife is generally punished with death. If the woman is not returned within a certain

period, either her seducer or one of his relatives is certain eventually to be slain.

The crime of adultery is punished severely—often with death. Anything approaching the crime of incest, in which they include marriages out of the right line, they hold in the greatest abhorrence, closely assimilating in this last point with the North American Indians, of whom it is said in the Archæologia Americana:

"They profess to consider it highly criminal for a man to marry a woman whose *totem* (family name) is the same as his own, and they relate instances when young men, for a violation of this rule, have been put to death by their own nearest relatives."*

And again:—"According to their own account, the Indian nations were divided into tribes for no other purpose than that no one might ever, either through temptation or mistake, marry a near relation, which at present is scarcely possible, for whoever intends to marry must take a person of a different tribe."†

The same feeling was remarked by Dobrizhoffer in South America; for, speaking of an interview with a native tribe, to whom he was preaching, he says:—"The old man, when he heard from me that marriage with relations was forbidden, exclaimed, 'Thou sayest well, father, such marriages are abominable; but that we know already.' From which I discovered that incestuous connexions are

* Vol. 2, p. 110, quoting from Tanner's Narrative, p. 313.

† Ibid.

more execrable to these savages than murder or robbery."*

Any other crime may be compounded for, by the criminal appearing and submitting himself to the ordeal of having spears thrown at him by all such persons as conceive themselves to have been aggrieved, or by permitting spears to be thrust through certain parts of his body; such as through the thigh, or the calf of the leg, or under the arm. The part which is to be pierced by a spear, is fixed for all common crimes, and a native who has incurred this penalty, sometimes quietly holds out his leg for the injured party to thrust his spear through.

When a native, after having absconded for fear of the consequences of some crime which he has committed, comes in to undergo the ordeal of having spears thrown at him, a large assemblage of his fellows takes place; their bodies are daubed with paint, which is put on in the most fantastic forms, their weapons are polished, sharpened, and rendered thoroughly efficient; at the appointed time young and old repair to the place of ordeal—and the wild beauty of the scenery, the painted forms of the natives, the savage cries, and shouts of exultation which are raised, as the culprit dexterously parries, or by rapid leaps and contortions of his body, avoids the clouds of spears which are hurled at him, all combine to form a singular scene, to which there is

* Account of the Abipones, Vol. 1, p. 69.

no parallel in civilized life. If the criminal is wounded in a degree judged sufficient for the crime he has committed, his guilt is wiped away; or if none of the spears thrown at him (for there is a regulated number which each may throw) take effect, he is equally pardoned.

But no sooner is this main part of the ceremony over, than two or three duels take place between some individuals, who have quarrels of their own to settle; after these combatants have thrown a few spears, some of their friends rush in and hold them in their arms, when the etiquette on such occasions is to struggle violently for a few minutes, as if anxious to renew the contest, and then to submit quietly to superior force, and cease the combat.

The natives pay but little regard to the wounds they receive in duels, or which are inflicted on them as punishments; their sufferings from all injuries are much less than those which Europeans would undergo in similar circumstances; this may probably arise from their abstemious mode of life, and from their never using any other beverage than water. A striking instance of their apathy with regard to wounds, was shewn on one occasion in a fight which took place in the village of Perth in Western Australia. A native man received a wound in that portion of his frame which is only presented to enemies when in the act of flight, and the spear which was barbed remained sticking in the wound; a gentleman who was standing by watching the

fray, regarded the man with looks of pity and commiseration, which the native perceiving, came up to him, holding the spear (still in the wound) in one hand, and turning round so as to expose the injury he had received, said, in the most moving terms, "Poor fellow, sixpence give it 'um."

CHAPTER XIII.

SOCIAL CONDITION AND DOMESTIC HABITS.

POPULATION—TERM OF LIFE—CONDITION OF OLD AGE,—AND OF YOUNG WOMEN—AVERAGE PROPORTION OF BIRTHS—IDIOTS AND LUNATICS—INFLUENCE OF POLYGAMY ON SOCIAL HABITS—MODE OF CONVERSATIONAL INTERCOURSE—CONSEQUENCES OF JEALOUSY—DANCES—CEREMONIES ON MEETING.

SEVERAL writers have given calculations as to the number of native inhabitants to each square mile, in Australia. Now, although I have done my utmost to draw up tables which might even convey an approximate result, I have found the number of inhabitants to a square mile to vary so much, from district to district, from season to season—and to depend upon so great a variety of local circumstances, that I am unable to give any computation which I believe would even nearly approach the truth; and as I feel no confidence in the results which I have obtained, after a great deal of labour, I cannot be expected to attach much importance to those which, to my own knowledge, have, in several instances, been arrived at by others from mere guess work.

With regard to the age occasionally attained by the natives, I believe very erroneous ideas have

been prevalent, for so far am I from considering them to be short-lived, that I am certain they frequently attain the age of seventy years and upwards. As they themselves have no knowledge whatever of their age, it is manifest that merely speculative ideas upon this point must be useless; the means, therefore, that I adopted to arrive at a probable conclusion may be illustrated by an example: In the table I have given of a family descending from two natives, Nardooitch, and Kimbeyenung, (Appendix A), the name of Yen-na will be found as one of Wundall's children; now, (1840) Yen-na is a young man of about twenty years of age, and from the usual habits of the natives, we must allow that his father, Bee-wul-lo, was at least twenty-three years old by the time he had married, and had a child; such being the case, Bee-wul-lo must now be about forty-three, and Jee-bar his father, must, by the same reasoning, be about sixty-six, yet he is alive and in perfect health, and his elder brother No-gong-o, is likewise alive, and as upright as possible, although the infirmities of old age are creeping on him. No-gong-o must be now at least sixty-eight years old, yet I have seen two other natives who, by his and their own account, are older than he is; and on making a calculation, in the way I have just done, to ascertain their age, it appeared that one of them was sixty-nine, and the other seventy-one; so that, although probably none of these estimates are quite correct, I still think that we are at liberty to infer, from various instances of this kind, that the natives

sometimes attain a very advanced age; yet were these instances of longevity contrasted with the great number of deaths which take place during the period of infancy, there can be no doubt whatever that the average duration of life amongst these savage tribes falls far short of that enjoyed by civilized races. There is, however, one species of death unknown to these barbarians, and that is suicide. I believe they have no idea that such a thing as a person's putting an end to his own life could ever occur: whenever I have interrogated them on this point, they have invariably laughed at me, and treated my question as a joke.

The period of old age must be as happy as any other time in the life of a savage, if not more so. Aged men are always treated with great respect; they rarely take a part in any fray; they are privileged to eat certain kinds of food, which the young men may not touch; and they seldom appear to suffer much from the infirmities and diseases to which the aged are generally subject amongst us.

Should a female be possessed of considerable personal attractions, the first years of her life must necessarily be very unhappy. In her early infancy she is betrothed to some man, even at this period advanced in years, and by whom, as she approaches the age of puberty, she is watched with a degree of vigilance and care, which increases in proportion to the disparity of years between them; it is probably from this circumstance that so many of them are addicted to intrigues, in which if they

are detected by their husbands, death, or a spear through some portion of the body is their certain fate; indeed the bare suspicion of infidelity upon their part is enough to ensure to them the most cruel and brutal treatment. For these causes during youth they are compelled, whether pregnant or not, to accompany their husbands in all their excursions, and are thus subject to violent and continued exercise and fatigue, at periods when repose is indispensable.

But even supposing a woman to give no encouragement to her admirers, many plots are always laid to carry her off, and in the encounters which result from these she is almost certain to receive some violent injury, for each of the combatants orders her to follow him, and in the event of her refusing throws a spear at her. The early life of a young woman at all celebrated for beauty is generally one continued series of captivity to different masters, of ghastly wounds, of wanderings in strange families, of rapid flights, of bad treatment from other females amongst whom she is brought a stranger by her captor; and rarely do you see a form of unusual grace and elegance, but it is marked and scarred by the furrows of old wounds; and many a female thus wanders several hundred miles from the home of her infancy, being carried off successively to distant and more distant points.

These various circumstances render miscarriages more frequent amongst these uncivilized tribes, than amongst European nations, and the first years

and bloom of a female generally elapse before she has any children; but then a fresh cause exists to prevent their having very large families, which is, that from the nature of the food used by the natives, it is necessary that a child should have good strong teeth before it can be even partially weaned. The native women therefore suckle their children until they are past the age of two or three years, and it is by no means uncommon to see a fine healthy child leave off playing, and run up to its mother to take the breast.

The native women suffer much less pain during the period of labour than Europeans; directly the child is born, it is wrapped in opossum skins, and strings made of the fur of this animal are tied like bracelets round the infant's wrists and ancles, with the intention of rendering it, by some supernatural means, a stronger and a finer child. They are always much prouder of a male than of a female child.

Forty-one females, of whose families I have obtained (from themselves and others) lists upon the accuracy of which I can rely, had 188 children, or about 4.6 children each. The greatest number born by any one female was 7, and only three had had so large a family as this; but, with the exception of one woman, they had all born more than one child. All those who were included in this list were past the age of child-bearing, at the time it was drawn up.

To ascertain the proportion of male to female

children, I drew up another list of 222 births, and out of these there were 93 females and 129 males, or about 1 female to every 1.3 males.

I have known four instances of native women having twins, but I have never heard of a greater number of children at one birth. Should a child be born with any natural deformity, it is frequently killed by its parents, soon afterwards. In the only instances of this kind which have come within my own knowledge, the child has been drowned.

Idiots are rarely found amongst the natives; in two cases I, however, observed persons of very deficient intellect. Mad people are unknown, and this very naturally, for very few freaks of madness could be committed by a lunatic ere he would fall a sacrifice to the violence and indignation of his fellows. Persons of very delicate and feeble constitutions are also rare, as those who survive the hardships to which they are exposed in their childhood, must possess an iron frame. The deaths amongst the children, particularly during early infancy, are, as far as I can judge, much more numerous in proportion to the number of births than they are in civilized nations.

The social habits of the natives of Australia are necessarily modified by the extent to which polygamy is permitted and practised amongst them. The very unequal distribution of the female sex, which arises from this cause, has rendered prevalent the custom of stealing wives; and as women are of great value, not only on account of the personal attachment

which they might be supposed to excite, but from the fact of all laborious tasks being performed, and a great portion of the food of the family being also collected by them, every precaution is taken to prevent them from forming any acquaintances which would be likely to terminate in their abduction.

A stern and vigilant jealousy is commonly felt by every married man; he cannot, from the roving nature of their mode of life, surround his wives with the walls of a seraglio, but custom and etiquette have drawn about them barriers nearly as impassable. When a certain number of families are collected together, they encamp at a common spot; and each family has a separate hut, or perhaps two. At these huts sleep the father of the family, his wives, the female children who have not yet joined their husbands, and very young boys; occasionally female relatives, who, from some temporary cause, have no male protector with them, also sleep at this fire; but the young men and boys of ten years old and upwards are obliged to sleep in their own portion of the encampment, where they themselves, or more generally, some of their mothers, build for them two or three huts, in which those related within certain degrees of consanguinity sleep together.

When strangers are with a party upon a visit, if attended by their wives, they sleep in their own huts, which are placed among those of the married people; but if their wives are not with them, or if they are unmarried, they sleep at the fire of the young men.

Under no circumstances is a strange native

allowed to approach the fire of a married man; in the day time they hunt or occupy themselves with the men, and at night they either sit at their own fire, or that of the young men. Their huts being placed at a little distance from one another, such an arrangement would appear to put an end to any thing like social intercourse or conversation; but they have invented a means of overcoming this difficulty, by making a species of chant, or recitative, their customary mode of address to each other. In an encampment at night, the young men recount to one another their love adventures, and stories; and the old men quarrel with their wives, or play with their children; suddenly a deep wild chant rises on the ear, in which some newly-arrived native relates the incidents of his journey, or an old man calls to their remembrance scenes of other days, or reminds them that some death remains unavenged: this is done in a loud recitative, and the instant it is commenced every other sound is hushed. A native, while thus chanting, is rarely or never interrupted, and when he has concluded, another replies in the same tone, until the conversation, still conducted in this manner, becomes general.

In the meantime, individuals, both male and female, move about from fire to fire, paying visits, and whispering scandal to one another; but these visits are so arranged, that none can approach a fire to which, by the established usages of society, they have not a right to go; the younger females, however, who are much addicted to intrigue, find, at

times, opportunity to exchange a word or a glance with some favoured lover, but woe to her, if her watchful husband should detect her in the act. A spear through the calf of the leg is the least punishment that awaits her; and if her husband feels himself strong enough, either from personal skill, or from the number of friends he has present, to inflict punishment upon her paramour, he does it in the most summary manner, throwing as many spears at his legs as he has an opportunity of doing, before others catch hold of him and prevent his committing farther acts of violence. A good deal of tact is required under these circumstances to ascertain whether a spear can safely be thrown at a man or not; but I have remarked as a general rule, that a native, if irritated by another, invariably throws a spear at him, if he has a friend or brother near the offender at the time; the chances then being that this friend or brother will catch hold of the man attacked before he can throw a spear in return. As for the poor female, no one takes her part, whether she is innocent or guilty; the established and very equitable law with regard to women being, "If I beat your mother, then you beat mine: if I beat your wife, then you beat mine," &c. &c. So that by judiciously conducting arrangements, a native can spear one aggressor himself, and get the other speared for him, without undergoing any personal trouble or inconvenience, or without in the least suffering in her good graces.

Should it be the intention of the natives to have

a dance, the arrangements are somewhat different. In this case, the young men retire early in the afternoon to some spot suited to their purpose, where they paint and deck themselves out in the most grotesque manner. After dark, they return to the encampment, near which the dance takes place. At these entertainments, the same rules of etiquette are strictly observed: the females sit in a group apart, generally behind the old men; the performers are on the side of the fire opposite to them; in one or two dances, the women take a part in the song, but they never dance themselves, nor are the young men allowed to approach them. It is all fair for the dancers to do their utmost, by the arrangement of paint and ornaments, to shew off their personal attractions, and they sometimes avail themselves of this privilege in the most ludicrous manner; but they are permitted to hold no converse whatever with any but their mothers and sisters.

The ceremonies they observe at first meeting one another after absence are remarkable. When a native and his wives enter an encampment of friends whom they have not for some time seen, they proceed straight to the hut of some relative or intimate friend, without bestowing even a glance upon any others whom they may pass: having reached the hut, the man at once seats himself at the fire, without taking the least notice of any one in it, whilst his wives crouch upon the earth at a respectful distance behind him, keeping their eyes fixed upon the ground; a solemn silence now ensues, all countenances wear

an unspeakable gloom and gravity, and all eyes are directed to the earth ; in about ten minutes the nearest blood relation of any individual who has died since the stranger has visited his friends, advances to him with a measured pace, and without speaking, seats himself cross-legged on his thighs, under which he places his hands, at the same time pressing his breast to the stranger's ; thus seated they mournfully avert their faces from one another, and preserve a perfect silence ; no single word or sign of recognition passes between them, and after they have remained thus seated for several minutes, the native who had come to announce the death, rises slowly, and retires with the same gravity with which he had approached ; other males of the family now successively approach the stranger, going through precisely the same ceremonies, none of them venturing to interchange a single word with him.

This part of the ceremony having been completed, the nearest female relative of the deceased approaches the stranger, and throwing herself upon her knees before him, she embraces his knees with her left arm, whilst with the nails of her right hand she scratches her cheek and nose until the blood drops from them, at the same time raising the most piteous cries and lamentations. After a few minutes she rises and approaches his wife, and seats herself on the ground in front of her ; the two now encircle one another with their left arms, resting their heads on each other's shoulders, whilst

they scratch their faces with their right hands, and cry and wail in a tone which excites in the minds of all who hear them sensations of deep grief; indeed I know of no sound, (not even excepting the Irish howl), which so fully expresses the passion of deep sorrow as this lament of the native women. When their cry is completed, the resident native woman rises from the ground, and slowly walks from the wife of the one who has returned to the camp; the other female relatives of the deceased then advance in turn, and go through the same form.

The returned absentee is now at liberty to speak, and some of the party in recitative recount to him all the leading facts that have occurred since their last meeting; they are, however, very careful not to mention the name of the person who is dead, but describe him by his attributes and family, in such a manner as to leave no doubt in the mind of the hearer; but to name aloud one who is departed, would be a gross violation of their most sacred prejudices, and they carefully abstain from it.

If natives meet in the bush, the foregoing ceremonies are in part observed: both parties at their first meeting sit down at a distance from one another, preserving a profound silence, and keeping their eyes fixed on the ground; after a time one of them commences a chant about himself, and from what great family he has sprung; they then approach one another, and if there is a death to communicate, the men press breast to breast, and knee to knee, remaining for some time with averted

faces, lost in melancholy thoughts; when they separate, the women approach and kneel, scratching their faces and crying in the way I have above described. Should no relative have died upon either side, the men, after rising up, approach one another, and enter into conversation; whilst the elder married females, if they like a stranger, embrace him affectionately; and give him a loud sounding kiss upon each cheek;—on several occasions I have had to submit myself, with as good a grace as I could, to this salutation.

In these casual meetings of natives, it occasionally happens, that several women kneel together, crying and embracing the knees of some old savage, who stands erect in the midst of the group, with a proud and lordly air, whilst they cower to the earth around him; sometimes they have children slung at their backs, and these little things may be seen unconsciously playing with their mothers' hair whilst this mournful scene is enacting. Some old women are scrupulously punctilious about the performance of all these matters of etiquette, attaching a degree of importance to them, which, in the eyes of civilized man, approaches the ludicrous; but they look upon them in a very different light. I have seen a number of these sticklers for form, kneeling round a little boy not more than six or seven years old, lamenting most bitterly, the little fellow meanwhile preserving in his countenance and bearing, all the gravity and dignity which a man could have exhibited.

CHAPTER XIV.

FOOD AND HUNTING.

ERRORS REGARDING SCARCITY OF THEIR FOOD—VARIETIES OF IT IN DIFFERENT LATITUDES—CAUSES OF OCCASIONAL WANT—LIST OF EDIBLE ARTICLES—IMPLEMENTS FOR DESTROYING ANIMALS—CONTENTS OF A NATIVE WOMAN'S BAG—DIFFERENT METHODS OF CATCHING KANGAROOS—COOKING A KANGAROO—METHODS OF TAKING AND COOKING FISH—FEASTING ON A STRANDED WHALE—KILLING WILD DOGS—TURTLE—BIRDS—OPOSSUMS—FROGS—SHELL-FISH—GRUBS—AND WALLOBIES.—EDIBLE ROOTS AND SEEDS—MODE OF COOKING AND PREPARING THEM—FUNGI—GUMS—COMMON RIGHTS IN CERTAIN FOOD.

ONE mistake, very commonly made with regard to the natives of Australia, is to imagine that they have small means of subsistence, or are at times greatly pressed for want of food: I could produce many, almost humorous instances of the errors which travellers have fallen into upon this point. They lament in their journals, that the unfortunate Aborigines should be reduced by famine to the miserable necessity of subsisting on certain sorts of food, which they have found near their huts; whereas, in many instances, the articles thus quoted by them are those which the natives most prize, and are really neither deficient in flavour nor nutritious quali-

ties. I will give one remarkable example of an error of this kind into which a traveller of great ability has fallen; but this will only render palpable the ignorance that has prevailed with regard to the habits and customs of this people when in their wild state, for those who frequent European towns, and the outskirts of population, are soon compelled by the force of circumstances to depart, in a great measure, from their original habits.

Captain Sturt, to whom I allude, says in his travels (vol. i. page 118.)—"Among other things, we found a number of bark troughs filled with the gum of the mimosa, and vast quantities of gum made into cakes upon the ground. From this it would appear that these unfortunate creatures were reduced to the last extremity, and, being unable to procure any other nourishment, had been obliged to collect this mucilaginous food."

The gum of the mimosa, thus referred to, is a favourite article of food amongst the natives, and when it is in season, they assemble in large numbers upon plains of the character previously described by Capt. Sturt, in order to enjoy this luxury. The profusion in which this gum is found enables large bodies to meet together, which, from their subsistence being derived from wild animals and vegetables of spontaneous growth, they can only do when some particular article is in full season, or when a whale is thrown ashore. In order more fully to shew how little the habits of this people have been understood, I may state with regard to this very gum, called by the natives *kwon-nat*,

that about the time the above account was published by Captain Sturt, an expedition was sent out from King George's Sound, in Western Australia, in order to discover what was the nature of the article of food so loudly praised by them, and which they stated was to be found in certain districts in great profusion; the belief at that time being, from the accounts given of it, that it could be only a new and valuable species of grain. The exploring party did not attain their object, and to this day many of the settlers believe the *kwon-nat* to be a kind of corn.

Generally speaking, the natives live well; in some districts there may at particular seasons of the year be a deficiency of food, but if such is the case, these tracts are, at those times, deserted. It is, however, utterly impossible for a traveller or even for a strange native to judge whether a district affords an abundance of food, or the contrary; for in traversing extensive parts of Australia, I have found the sorts of food vary from latitude to latitude, so that the vegetable productions used by the Aborigines in one are totally different to those in another; if, therefore, a stranger has no one to point out to him the vegetable productions, the soil beneath his feet may teem with food, whilst he starves. The same rule holds good with regard to animal productions; for example, in the southern parts of the continent the Xanthorrea affords an inexhaustible supply of fragrant grubs, which an epicure would delight in, when once he has so far

conquered his prejudices as to taste them; whilst in proceeding to the northward, these trees decline in health and growth, until about the parallel of Gantheaume Bay they totally disappear, and even a native finds himself cut off from his ordinary supplies of insects; the same circumstances taking place with regard to the roots and other kinds of food at the same time, the traveller necessarily finds himself reduced to cruel extremities. A native from the plains, taken into an elevated mountainous district near his own country, for the first time, is equally at fault.

But in his own district a native is very differently situated; he knows exactly what it produces, the proper time at which the several articles are in season, and the readiest means of procuring them. According to these circumstances he regulates his visits to the different portions of his hunting ground; and I can only state that I have always found the greatest abundance in their huts. There are, however, two periods of the year when they are, at times, subjected to the pangs of hunger: these are, in the hottest time of summer, and in the height of the rainy season. At the former period the heat renders them so excessively indolent, that until forced by want they will not move, and at the latter, they suffer so severely from the cold and rain, that I have known them remain for two successive days at their huts without quitting the fire; and even when they do quit it, they always carry a fire-stick with them, which greatly embarrasses their

movements. In all ordinary seasons, however, they can obtain, in two or three hours, a sufficient supply of food for the day, but their usual custom is to roam indolently from spot to spot, lazily collecting it as they wander along.

That an accurate idea may be formed of the quantity and kinds of food which they obtain, I have given below a list of those in use amongst the aborigines of South-western Australia, which I have seen them collect and eat; and I will, in the order in which they stand on this list, shew the mode of obtaining them, and the way in which they are cooked.

Different articles of food eaten by the natives of Western Australia :—

Six sorts of kangaroo.

Twenty-nine sorts of fish.

One kind of whale.

Two species of seal.

Wild dogs.

Three kinds of turtle.

Emus, wild turkeys, and birds of every kind.

Two species of opossum.

Eleven kinds of frogs.

Four kinds of fresh water shell-fish.

All salt water shell-fish, except oysters.

Four kinds of grubs.

Eggs of every species of bird or lizard.

Five animals, something smaller in size than rabbits.

Eight sorts of snakes.

Seven sorts of iguana.

Nine species of mice and small rats.

Twenty-nine sorts of roots.

Seven kinds of fungus.

Four sorts of gum.

Two sorts of manna.

Two species of *by-yu*, or the nut of the Zamia palm.

Two species of mesembryanthemum.

Two kinds of nut.

Four sorts of fruit.

The flower of several species of Banksia.

One kind of earth, which they pound and mix with the root of the *mene*.

The seeds of several species of leguminous plants.

It will be necessary, however, before commencing this sketch, to give an outline of the weapons and implements, with which the different animals are caught and killed, and the vegetable productions procured.

The natives nearly always carry the whole of their worldly property about with them, and the Australian hunter is thus equipped:—round his middle is wound, in many folds, a cord spun from the fur of the opossum, which forms a warm, soft and elastic belt, of an inch in thickness, in which are stuck his hatchet, his kiley or boomerang, and a short heavy stick to throw at the smaller animals. His hatchet is so ingeniously placed, that the head of it rests exactly on the centre of his back, whilst its thin short handle descends along the back bone. In his hand he carries his throwing-stick, and

several spears, headed in two or three different manners, so that they are equally adapted to war or the chase. A warm kangaroo skin cloak completes his equipment in the southern portions of the continent; but I have never seen a native with a cloak, any where to the north of 29° s. lat.

These weapons, although apparently so simple, are admirably adapted for the purposes they are intended to serve—the spear when projected from the throwing-stick, forms as effectual a weapon as the bow and arrow, whilst at the same time it is much less liable to be injured—and it possesses, over the bow and arrow, the advantage of being useful to poke out kangaroo rats and opossums from hollow trees, to knock off gum from high branches, to pull down the cones from the Banksia trees, and for many other purposes.

The hatchet is used to cut up the larger kinds of game, and to make holes in the trees the owner is about to climb. The kiley is thrown into flights of wild fowl and cockatoos, and with the dow-uk, a short heavy stick, they knock over the smaller kinds of game, much in the same manner that poachers do hares and rabbits in England.

Thus equipped, the father of the family stalks forth, and at a respectful distance behind him follow the women; a long thick stick, the point of which has been hardened in the fire, is in each of their hands, a child or two fixed in their bags or upon their shoulders, and in the deep recesses of these mysterious bags, they carry moreover sundry

articles, which constitute the wealth of the Australian savage—these are however worthy of a particular enumeration, as this will make plain the domestic economy of one of these barbarian housewives.

The contents of a native woman's bag are:—A flat stone to pound roots with; earth to mix with the pounded roots; quartz, for the purpose of making spears and knives; stones for hatchets; prepared cakes of gum, to make and mend weapons, and implements; kangaroo sinews to make spears and to sew with; needles made of the shin bones of kangaroos, with which they sew their cloaks, bags, &c.; opossum hair to be spun into waist belts; shavings of kangaroo skins to polish spears, &c.; the shell of a species of muscle to cut hair, &c. with; native knives; a native hatchet; pipé clay; red ochre, or burnt clay; yellow ochre; a piece of paper bark to carry water in; waistbands, and spare ornaments; pieces of quartz, which the native doctors have extracted from their patients, and thus cured them from diseases; these they preserve as carefully as Europeans do relics. Banksia cones (small ones), or pieces of a dry white species of fungus, to kindle fire with rapidly, and to convey it from place to place; grease, if they can procure it from a whale, or from any other source; the spare weapons of their husbands, or the pieces of wood from which these are to be manufactured; the roots, &c. which they have collected during the day. Skins not yet prepared for cloaks are generally carried between the bag

and the back, so as to form a sort of cushion for the bag to rest on.

In general each woman carries a lighted fire stick, or brand, under her cloak and in her hand.

Imagining several parties of this kind, headed by one of young men, to be moving through the woods, let us follow them, and watch their mode of procuring, and cooking their different varieties of food.

The moment an Australian savage commences his day's hunting, his whole manner and appearance undergo a wondrous change: his eyes, before heavy and listless, brighten up, and are never for a moment fixed on one object; his gait and movements, which were indolent and slow, become quick and restless, yet noiseless; he moves along with a rapid stealthy pace, his glance roving from side to side in a vigilant uneasy manner, arising from his eagerness to detect signs of game, and his fears of hidden foes. The earth, the water, the trees, the skies, each are in turn subjected to a rigid scrutiny, and from the most insignificant circumstances he deduces omens—his head is held erect, and his progress is uncertain, in a moment his pace is checked, he stands in precisely the position of motion as if suddenly transfixed, nothing about him stirs, but his eyes, they glance uneasily from side to side, whilst the head and every muscle seem immoveable; but the white eye-balls, may be seen in rapid motion, whilst all his faculties are concentrated, and his whole soul is absorbed in the senses of sight and hear-

ing. His wives who are at some distance behind him, the moment they see him assume this attitude, fall to the ground as if they had been shot; their children cower by them, and their little faces express an earnestness and anxiousness, which is far beyond their years; at length a suppressed whistle is given by one of the women, which denotes that she sees a kangaroo near her husband—all is again silence, and quietude; and an unpractised European would ride within a few yards of the group, and not perceive a living thing.

Looking about a hundred yards to the right of the native, you will see a kangaroo erect upon its hind legs, and supported by its tail; it is reared to its utmost height, so that its head is between five and six feet above the ground—its short fore paws hang by its side, its ears are pointed, it is listening as carefully as the native, and you see a little head peering out from its pouch, to enquire what has alarmed its mother; but the native moves not, you cannot tell whether it is a human being or the charred trunk of a burnt tree which is before you, and for several minutes the whole group preserve their relative position; at length the kangaroo becomes reassured, drops upon its fore paws, gives an awkward leap or two, and goes on feeding, the little inhabitant of its pouch stretching its head farther out, tasting the grass its mother is eating, and evidently debating whether or not it is safe to venture out of its resting place, and gamble about amongst the green dewy herbage.

Meantime the native moves not until the kangaroo, having two or three times resumed the attitude of listening, and having like a monkey scratched its side with its fore-paw, at length once more abandons itself in perfect security to its feed, and playfully smells and rubs its little one. Now the watchful savage keeping his body unmoved, fixes the spear first in the throwing-stick, and then raises his arms in the attitude of throwing, from which they are never again moved until the kangaroo dies or runs away; his spear being properly secured, he advances slowly and stealthily towards his prey, no part moving but his legs; whenever the kangaroo looks round, he stands motionless in the position he is in when it first raises its head, until the animal, again assured of its safety, gives a skip or two and goes on feeding; again the native advances, and this scene is repeated many times, until the whistling spear penetrates the devoted animal; then the wood rings with shouts; women and children, all join pell-mell in the chase; the kangaroo, weak from the loss of blood, and embarrassed by the long spear which catches in the brush-wood as it flies, at length turns on its pursuers, and to secure its rear places its back against a tree, preparing at the same time to rend open the breast and entrails of its pursuer, by seizing him in its fore paws, and kicking with its hind legs and claws; but the wily native keeps clear of so murderous an embrace, and from the distance of a few yards throws spears into its breast,

until the exhausted animal falls, and is then soon despatched; when, with the assistance of his wives, he takes its fore legs over his left, and the hind legs over his right shoulder, and totters with his burden to some convenient resting place, where they can enjoy their meal.

The chase of the kangaroo conducted by a number of natives is a much more lively and noisy affair, but it is not to my taste nearly so interesting. When a single native hunts, you see the whole energy and perseverance of which a savage is capable called forth, and his graceful movements, cautious advance, the air of quietude and repose which pervade his frame when his prey is alarmed, all involuntarily call forth your admiration, and compel you to murmur to yourself, "how beautiful, how very beautiful" —But where a party hunt there is more bustle and animation in the scene; and this kind of hunting is called "*Yowart-a-kaipoon*," or kangaroo surrounding. The animals which are to be killed by a party who proceed for this purpose, are either surprised in a thick bushy place, where they have retired to lie down in the heat of the day, or else in an open plain; in the former case they are tracked to their retreat, and the party then encircling it first ascertain that they have not quitted it; as each native takes up his position, he gives a low whistle, and when the blockade is completed they fire the bushes; the frighted animals now fly from the flames in the direction of the open plains, but no sooner do they

reach the outskirts of the wood, than the bushes are fired in the direction in which they are running, and they are driven back by loud calls and terrific cries, which augment their terror, and they run wildly about; until, becoming maddened by fear, they make a rush through the midst of their enemies, who allow but few of their victims to escape.

When kangaroos are surrounded upon a plain, the point generally chosen is an open bottom surrounded by wood; each native has his position assigned him by some of the elder ones, and a great deal of art and caution are sometimes required to gain it; for this end they avail themselves of every inequality of the ground, of every bush, of every shrub, and as there are so many witnesses of their skill and cunning, they put forth all their art to approach as near the kangaroos as possible without disturbing them, and thus the circle narrows in around the unconscious animals, till at last some one of them becomes alarmed, and bounds away, but ere it has proceeded many yards, its flight is arrested by a savage with fearful yells; terrified it sits down with its frightened comrades, to look for a means of escape, but armed natives brandishing their spears and raising loud cries come running in upon them from every side; and ere the animals have recovered the first moments of terror and surprise, a slaughter has already commenced, which seldom terminates before the greater number of them have fallen.

These great public hunts or battues, are conducted under certain rules. The proprietor of the land must have invited the other natives, and must be present himself, for should these regulations be violated, a very bloody fight is certain to take place. The first spear which strikes a kangaroo, determines whose property the dead animal is to be; it being no matter how slight the wound may have been; even if a boy threw the spear the rule holds good, and if the animal killed is one which by their laws a boy is not allowed to eat, then his right passes on to his father, or eldest male relation. The cries of the hunters, as they ring through the ancient woods, are very expressive and beautiful, each different intonation belonging to a particular period of the hunt—and what renders them peculiarly effective is that, instead beginning as we always do with a soft aspiration, as in Hollo, Ho, &c. their cries always commence with a harsh sound, as *hau;* and this circumstance enables them to talk at a great distance so as to be perfectly intelligible to one another. Sometimes in deep wooded valleys I have heard gentle fairy-like sounds coming down from the heights, and rendered so soft and sweet by distance, that one might readily have fancied them to be supernatural, yet the natives with me readily understood them, and shouted back their reply:—this harsh commencement of their shout gives one also a terrible start when surprised in a murderous attack.

Four other modes of taking kangaroos are prac-

tised by the natives: these are, catching them in nets—in pitfalls—lying in wait near their watering places until they come to drink—and constantly following their tracks until the animals are so wearied out that they will allow the huntsman to approach near enough to spear them. Of these four modes, the last two are the most interesting, and the former is thus practised: in a dry district, where numerous animals congregate from a great distance to drink at a solitary water, the huntsman constructs a rude shelter, in which for hours he remains concealed and motionless, until the thirsty animals approach; kangaroos, cockatoos, pigeons, and all other beings that run and fly are in this case indiscriminately sacrificed, and the patient endurance of the hunter is generally richly rewarded by the booty he obtains.

But the mode of tracking a kangaroo until it is wearied out, is the one which beyond all others, excites the admiration of the natives; this calls out every qualification prized by savages, skill in tracking, endurance of hunger and thirst, unwearied bodily exertion, and lasting perseverance. To perform this feat a native starts upon the tracks of a kangaroo, which he follows until he sights it, when it flies timidly before him; again he pursues the track, and again the animal bounds from him; and this is repeated until night-fall, when the native lights his fire and sleeps upon the track; with the first light of day the hunt is resumed, and towards the close of the second day, or in the course of the

third, the kangaroo falls a victim to its pursuer. None but a skilful huntsman, in the pride of youth and strength, can perform this feat, and one who has frequently practised it, always enjoys great renown amongst his fellows.

Before they commence cooking the kangaroo, an incision is made round the base of the tail to the bone, and another incision skin deep round the tip. The skin is then pulled away from the other part with all the sinews of the tail attached to it, and these are drawn carefully out and at once rolled round the *dowuk*, so as to keep them stretched: their future use is either to sew cloaks and bags, or to make spears.

Two modes of cooking the kangaroo are common; the first is to make an oven by digging a hole in the sand, in which a fire is lighted; when the sand is well heated and a large heap of ashes is collected, the hole is scraped out, and the kangaroo is placed in it, skin and all; it is then covered over with ashes, and a slow fire is kept up above it; when sufficiently baked, it is taken out and laid upon its back; the first incision is made directly down from between the fore arms to the bottom of the abdomen, the intestines are then removed, and the whole of the juice or gravy is left in the body of the animal, this is carefully taken out, and the body is then cut up and eaten.

The other mode is simply to kill the kangaroo, and then to broil the different portions of it on the fire: certain parts are considered great delicacies,

and these the young men are forbidden to eat; such are the blood, the entrails, and the marrow. The blood is always carefully collected in one of the intestines, so as to form a long sausage, and is afterwards eaten by the most influential man present.

It will be seen, from the foregoing list, that the smaller sorts of fish eaten by the natives are very numerous: there are, however, several kinds, which from superstitious prejudices they will not touch; amongst these are the *Bamba*, or sting-ray. I should here observe that these prejudices are local, and I have seen them reject at one portion of the continent articles of food, which at a distant part they will eat readily.

Three modes of taking fish are commonly practised,—spearing them; catching them by means of a weir; and taking them in a net. A party of natives spearing fish in one of their large shallow estuaries, is an extremely picturesque sight; they follow all the tortuous windings of the fish they are pursuing, as it darts about in the water, with great rapidity; and the object of their pursuit being concealed from a distant spectator, they appear to be running about in the sea, and dashing up the foam for no conceivable cause or reason. Notwithstanding the speed they are running with, and the smallness of the object, in striking they rarely miss their aim. In deep rivers, or in the sea, the mode of spearing fish varies according to

the circumstances of the case; sometimes it is done by diving, sometimes by sitting on a rock or tree, and watching them as they pass underneath; but in all cases astonishment is excited to see the celerity and accuracy with which the eye and hand act in the nicest unison.

Weirs are only constructed across places which are left nearly dry at low water, or when the floods subside; and the way in which fish are taken in the net offers nothing remarkable.

If the fish are not cooked by being merely thrown on the fire and broiled, they dress them in a manner worthy of being adopted by the most civilized nations; this is called "*Yudarn dookoon*," or "tying-up cooking." A piece of thick and tender paper bark is selected, and torn into an oblong form; the fish is laid in this, and the bark wrapt round it, as paper is folded round a cutlet; strings formed of grass are then wound tightly about the bark and fish, which is then slowly baked in heated sand, covered with hot ashes; when it is completed, the bark is opened, and serves as a dish: it is of course full of juice and gravy, not a drop of which has escaped. Several of the smaller sorts of fresh-water fish, in size and taste resembling white bait, are really delicious when cooked in this manner; they occasionally also dress pieces of kangaroo and other meats in the same way.

A whale is the greatest delicacy that a native can partake of, and whilst standing beside the giant

frame of one of these monsters of the deep, he can only be compared to a mouse standing before a huge plum-cake; in either case the mass of the food compared to that of the consumer is enormous. It is impossible for civilized man to enter into the feelings of the savage under these circumstances, for he has never been similarly situated,—he never has had such a quantity of food that he doats on placed at once before him; hence, when a native proprietor of an estate in Australia finds a whale thrown ashore upon his property, his whole feelings undergo a sudden revulsion. Instead of being churlishly afraid of the slightest aggression on his property, his heart expands with benevolence, and he longs to see his friends about him; so he falls to work with his wives, and kindles large fires to give notice of the joyful event.

This duty being performed, he rubs himself all over with the blubber, then anoints his favourite wives, and thus prepared, cuts his way through the blubber into the flesh or beef, the grain of which is about as firm as a goose-quill, of this he selects the nicest morsels, and either broils them on the fire, or cooks them as kabobs, by cutting them into small pieces, and spitting them on a pointed stick.

By-and bye other natives come gaily trooping in from all quarters: by night they dance and sing, and by day they eat and sleep, and for days this revelry continues unchecked, until they at last fairly eat their way into the whale, and you see them climbing in and about the stinking carcase, choosing

tit-bits. In general the natives are very particular about not eating meat that is fly-blown or tainted, but when a whale is in question, this nicety of appetite vanishes. I attribute this to their disliking in the first instance to leave the carcase, and then gradually getting accustomed to its smell; but whatever may be the reason, they remain by the carcase for many days, rubbed from head to foot with stinking blubber, gorged to repletion with putrid meat,—out of temper from indigestion, and therefore engaged in constant frays,—suffering from a cutaneous disorder by high feeding, and altogether a disgusting spectacle. There is no sight in the world more revolting than to see a young and gracefully formed native girl stepping out of the carcase of a putrid whale. When they at last quit their feast, they carry off as much as they can stagger under, to eat upon the way, and to take as a rarity to their distant friends.

Killing seals is, from the habits of these animals, necessarily an exciting species of hunting in the southern and western portions of the continent. It is only enjoyed by the natives when they can surprise a seal upon the beach or in the surf, or when they swim off to some of the small rocky islands which are connected with the main by reefs, and are at no great distance from it; they are themselves fond of this sport, and the clambering about the wild rocks of their native shore,—at one time leaping from rock to rock, spearing fish that lie in the quiet pools,—in the next moment dashing into the boisterous surf,

to spear a large fish, to battle with a seal, or to turn a turtle, cannot but be an exhilarating occupation; and when to this we add that their steps are followed by a wife and children, as dear to them as ours are to us, who are witnesses of their agility and prowess, and who, when the game is killed, will help to light the fire in which it is to be cooked, and drag it to the resting-place, where the father romps with the little ones until the meal is prepared,—and that all this takes place in a climate so mild and genial, that a house is not necessary, we shall perhaps the less wonder that it should be so difficult to induce a savage to embrace the customs of civilized life.

There is nothing peculiar in their mode of killing wild dogs; puppies are of course the greatest delicacy, and are often feasted on; they sometimes however save these in order to keep them in a domesticated state, and in this case one of the elder females of the family suckles them at her own breast, and soon grows almost as fond of them as of children. A dog is baked whole in the same manner as a kangaroo;—it is laid on its back in the hole in the heated sand, and its nose, fore-paws and hind-paws are left sticking out of the ashes which are scraped over it, so that it bears rather a ludicrous appearance.

The green turtle are surprised by the natives on the beach when they come to lay their eggs, and are very rarely taken much to the south of Sharks Bay, but fresh-water turtle are extremely abundant,

and are in high season about December and January. At this time the natives assemble near the fresh-water lakes and lagoons in large numbers; these natural reservoirs are then shrunk to their lowest limits from evaporation and other causes, and are thickly overgrown with reeds and rushes. Among these the natives wade with stealthy pace, so stealthy that they even creep upon wild-fowl and spear them. The habits of the turtle are to swim lazily along near the surface of the water, about half immersed, biting and smelling at the various aquatic plants which they pass, and turning their long ungainly necks in all directions. When alarmed by the approach of a native, the turtle instantly sinks to the bottom like a stone, and its pursuer putting out his foot, the toes of which he uses to seize anything, just as we do our fingers, gropes about with it in the weeds, until he feels the turtle, and then holding it to the ground, plunges his hands and arms in and seizes his prey. I have known two or three of them to catch fourteen turtle, none of which weighed less than one, and many of them as much as two or three pounds, in the course of a very short time.

These fresh-water turtle are cooked by being baked, shell and all, in the hot ashes; when they are done, a single pull removes the bottom shell, and the whole animal remains in the upper one, which serves as a dish. They are generally very fat, and are really delicate and delicious eating; the natives are extremely fond of them, and the

turtle season is looked forward to by them as a very important period of the year.

Birds form a very considerable article of food for the natives, and their modes of killing them are so various, that it would be impossible to enumerate them all. Emus are killed in precisely the same manner as kangaroos, but as they are more prized by the natives, a greater degree of excitement prevails when an emu is slain; shout succeeds shout, and the distant natives take up the cry until it is sometimes re-echoed for miles: yet the feast which follows the death is a very exclusive one; the flesh is by far too delicious to be made a common article of food,—hence, heavy penalties are pronounced against young men, and unauthorized persons, who venture to touch it, and these are invariably rigidly enforced.

Perhaps as fine a sight as can be seen in the whole circle of native sports is the killing cockatoos with the kiley, or boomerang. A native perceives a large flight of cockatoos in a forest which encircles a lagoon; the expanse of water affords an open clear space above it, unencumbered with trees, but which raise their gigantic forms all around, more vigorous in their growth from the damp soil in which they flourish; and in their leafy summits sit a countless number of cockatoos, screaming and flying from tree to tree, as they make their arrangements for a night's sound sleep. The native throws aside his cloak, so that he may not even have this slight covering to impede his motions, draws his kiley

from his belt, and, with a noiseless, elastic step, approaches the lagoon, creeping from tree to tree, from bush to bush, and disturbing the birds as little as possible; their sentinels, however, take the alarm, the cockatoos farthest from the water fly to the trees near its edge, and thus they keep concentrating their forces as the native advances; they are aware that danger is at hand but are ignorant of its nature. At length, the pursuer almost reaches the edge of the water, and the scared cockatoos, with wild cries, spring into the air; at the same instant the native raises his right hand high over his shoulder, and, bounding forward with his utmost speed for a few paces, to give impetus to his blow, the kiley quits his hand as if it would strike the water, but when it has almost touched the unruffled surface of the lake, it spins upwards with inconceivable velocity, and with the strangest contortions. In vain the terrified cockatoos strive to avoid it; it sweeps wildly and uncertainly through the air, and so eccentric are its motions, that it requires but a slight stretch of the imagination to fancy it endowed with life, and with fell swoops is in rapid pursuit of the devoted birds,—some of whom are almost certain to be brought screaming to the earth.

But the wily savage has not yet done with them. He avails himself of the extraordinary attachment which these birds have for one another, and, fastening a wounded one to a tree, so that its cries may induce its companions to return, he watches his opportunity by throwing his kiley or spear to add

another bird or two to the booty he has already obtained.

The various kinds of wild-fowl with which the rivers and lagoons of Australia abound, afford a never-failing supply of food to the natives, and many are the arts to which they have recourse to entrap these wary birds. During the period of the moulting season, they catch many black swans. Some of the young men lie for hours in ambush on the banks, until the unconscious swans have ventured so far into shallow water that they can run round them and cut off their retreat. When this auspicious moment arrives, with loud shouts the men dash in, and whilst one party intercepts the birds, so that they cannot get into the deeps, a second soon runs them down. In the same manner they take the young cygnets; and these I believe to be as good eating and as delicate an article of food as any country can produce.

It is also an interesting sight to see the natives creep after wild-fowl, and, under cover of the reeds and bushes, get so near that they can either spear them or catch them with a noose. A reedy lagoon lies at your feet, almost surrounded by rocky cliffs and dusky woods; there are some small open spaces of water, but generally it is so thickly overgrown with high reeds that it looks rather like a swampy wood than a lake; in the distance you see curling up a thin cloud of blue smoke, which indicates that a native encampment is at hand. The forms of many wild-fowl are seen swimming about among the

reeds, for a moment caught sight of, and in the next lost in the dusky green of the vegetation. Every now and then a small party of them rise up, and after winging their way two or three times round the lagoon, at the same time giving a series of their "quack, quack," which are loudly responded to from the recesses of the reeds, they again settle down in another part of it.

This circumstance, and a few other signs, induce a sportsman to suspect that there is some mischief afloat, and his doubts are soon set at rest: upon some bough of a tree, which stretches far out over the water, and thus affords its occupant a view of all that is passing in the lake below, he sees extended the form of an aged native, his white locks fluttering in the breeze; he is too old to take a part in the sport that is going on, but watches every movement with the most intense interest, and by well-known signs directs the movements of the hunters, who may now be seen creeping noiselessly through the water, and at times they appear so black and still, that even a practised huntsman doubts for a moment whether it is a man or the stump of a tree which he looks on. The natives are sometimes very successful in this kind of hunting: I have known a single man spear or noose ten wild-fowl, of different sorts, in an hour and a half or two hours' time.

One very dexterous feat which the natives perform is to kill a bird as it flies from the nest. This is executed by two men, one of whom, placing himself under the nest, throws a spear

through its centre, so as to hit the bird in the breast, which, frightened and slightly wounded, flies out, and is then struck to the ground by the *dow-uk*, which the other native hurls at it as it quits the tree. They are such good shots with these short, heavy sticks, that pigeons, quails, and even the smallest birds, are usually knocked over with them; and I have often seen them kill a pigeon with a spear, at the distance of about thirty paces.

Birds are generally cooked by plucking them and throwing them on the fire,—certain portions of the entrails being considered a great delicacy: but when they wish to dress a bird very nicely, they first of all draw it, and cook the entrails separately; a triangle is then formed round the bird by three red-hot pieces of stick, against which ashes are placed, hot coals are also stuffed into the inside of the bird, and it is thus rapidly cooked and left full of gravy. Wild-fowl dressed in this way on a clean piece of bark, form as good a dish as I have ever eaten.

Opossum hunting is pursued either by day or during a moon-light night. A stranger cannot but be favourably impressed with regard to the quickness of a native in discovering whether or not an opossum has ascended a tree. The savage carelessly walks up to some massive trunk which he thinks bears a suspicious appearance, his hands are placed thoughtlessly behind his back, whilst his dark eye glances over the bark; suddenly it is for one moment stationary, and he looks eagerly at the

tree, for he has detected the holes made by the nails of an opossum, in its ascent; he now seeks for one of these foot-marks, which has a little sand attached to it, and gently blows the sand, but it sticks together, and does not easily move away,—this is a proof that the animal has climbed the tree the same morning, for otherwise the sand would have been dried up by the heat of the sun, and not being held together by dampness, would have been readily swept away before his breath; having by this examination of signs, which an unskilled European in vain strains his eyes to detect, convinced himself that the opossum is in some hole of the tree, the native pulls his hatchet from his girdle and cutting a small notch in the bark, about four feet from the ground, he places the great toe of his right foot in it, throws his right arm round the tree, and with his left hand sticks the point handle of the hatchet into the bark, as high up as he can reach, and thus forms a stay to drag himself up with; having made good this step, he cuts another for his left foot, and thus proceeds until he has ascended to the hole where the opossum is hid, which is then compelled by smoke, or by being poked out, to quit its hiding-place, when the native catching hold of its tail, dashes it down on the ground, and quietly descends after it. As the opossum gives a very severe and painful bite, the natives are careful to lay hold of it in such a manner as to run the least possible danger of being seized by its teeth.

Opossum hunting by moonlight, excepting in the beauty of the spectacle, offers no feature different from what I have above described; the dusky forms of the natives moving about in the gloomy woods, and gazing up into the trees to detect an animal feeding, whilst in the distance natives with fire-sticks come creeping after them, is a picturesque sight, and it is also pretty to see the dark body of the native against the moonlight, as he climbs the tree, forcing the poor opossum to retreat to the very end of some branch, whence he is shaken off, or knocked down with a stick. The natives themselves like these moonlight expeditions, and speak with enthusiasm of them. They are particularly fond of spearing fish at certain seasons of the year, in which case they go along the shoal water with a light, and proceed exactly in the manner still practised in Scotland and Ireland.

The season of the year in which the natives catch the greatest quantity of frogs, and fresh-water shell-fish, is when the swamps are nearly dried up; these animals then bury themselves in holes in the mud, and the native women with their long sticks, and long thin arms, which they plunge up to the shoulder in the slime, manage to drag them out; at all seasons however they catch some of these animals, but in summer a whole troop of native women may be seen paddling about in a swamp, slapping themselves to kill the mosquitoes and sandflies, and every now and then plunging their arms down into the mud, and dragging forth their prey. I have

often seen them with ten or twelve pounds weight of frogs in their bag.

Frogs are cooked on a slow fire of wood ashes, they are then held in one hand by the hind legs, and a dexterous pinch with the finger and thumb of the other, at once removes the lower portion of the intestines, the remainder of the animal is then taken at a mouthful and fairly eaten from the head to the toes.

The fresh-water shell-fish vary in size from that of a prawn, to a large cray-fish; the smallest are the best, and when nicely roasted there is no difference in taste between them and a shrimp. It is worthy of remark that the natives in the south-western part of Australia will not touch fresh-water muscles, which are very abundant in the rivers, whilst in the north-western part of the continent, they form a staple article of food.

Grubs are principally procured by the natives from the Xanthorrea or grass-tree, but they are also found in wattle-trees, and in dead timber; those found in the grass-tree have a fragrant aromatic flavour, and taste very like a nice nut. Their presence in a tree is thus ascertained; if the top of the tree is observed to be dead, the native gives it a few sharp kicks with his foot, when, if it contains any *barde* or grubs, it begins to give, and if this takes place he pushes the tree over, and gradually breaking it to pieces with his hammer, he extracts the grubs, of which sometimes more than a hundred are found in a single tree.

Until the top of the tree is dead, it is not a proper receptacle for these animals, the natives are therefore in the habit of breaking off the tops of the grass-trees on their land at a particular season of the year, in order that they may have an abundance of this highly prized article of food. If two or more men have a right to hunt over the same portion of ground, and one of them breaks off the tops of certain trees, by their laws the grubs in these are his property, and no one else has a right to touch the tree. No mistake on this point can occur, for if the top of the tree dies naturally it still remains in its original position, whereas a native who thus prepares the tree knocks it off altogether; an instance occurred at King George's Sound, of a native travelling between thirty and forty miles, to lay a complaint before the Resident, that another had been guilty of this unpardonable breach of honesty, and notwithstanding it had been clearly brought home to him, still stoutly refused to make any amends.

When there is a grub in a wattle-tree, its diseased state, which produces excrescences, soon betrays this circumstance to the watchful eyes of a native, and an animal much larger than those found in the grass-tree is soon extracted; they seldom however find more than one or two of these in the same tree.

Grubs are either eaten raw or roasted; they are best roasted tied up in a piece of bark, in the manner in which I have before stated that they cook

their fish. If the natives are taunted with eating such a disgusting species of food as these grubs appear to Europeans, they invariably retort by accusing us of eating raw oysters, which they regard with perfect horror.

The smaller species of animals are either caught by surprising them in their seats, or by burning the bush. A native hunting for food has his eyes in constant motion, and nothing escapes them; he sees a kangaroo rat sitting in a bush, and he walks towards it, as if about to pass it carelessly, but suddenly when on one side of it, he stamps on the bush with all his force, and crushes the little animal to death; should it be rapid enough in its movements to avoid this blow he hurls his *dow-uk* at it, as it scampers off, and should he not hit it he runs after and tracks it to some dead hollow tree, lying on the ground, in which it has taken shelter, and with the aid of his spear, which is about ten feet long, he draws it out.

Another very ingenious mode of taking walloby and the smaller kind of kangaroos, is to select a thick bushy place, where there are plenty of these animals; the bushes are then broken down in a circle round the spot where they intend to hunt, so as to form a space of broken scrub about ten feet wide all round a thick bush, they thus not only destroy the runs of the animals, but form with the fallen bushes a place which so embarrasses, and entangles them, that they find great difficulty in passing it; indeed when these preparations have

been made, the natives fire the bush and the frightened animals finding their runs stopped up, rush into the fallen branches, where every jump which they make upon their hind legs, only involves them in greater difficulties, so that they fall an easy prey to their pursuers.

Some of the smaller animals, such as the *dal-gyte*, an animal about the size of a weasel, burrow in the earth; these the natives surprise when they are feeding, or dig them from their burrows. They are all cooked by having their fur singed off, and being roasted on the fire; to the taste of a native, the skinning a small animal would be an abomination, and I must really confess that a kangaroo rat, nicely singed and cooked by them, is not a bad dish for a hungry traveller.

Although the natives could in many districts procure native salt, and most certainly from its abundance cannot be unacquainted with it, they never use it, until they have seen Europeans do so, and even then do not at first like it—they also dislike mustard, sauces, &c. when they first eat them, and indeed nothing can be more ludicrous than their grimaces are the first time mustard is given to them upon a piece of meat.

The roots eaten by the natives belong to the following genera:—

Dioscorea—two species.

Hæmadorum—several species,—as the *Mene*, *Ngool-ya*, *Mud-ja*, *&c. &c.*

Geranium—several species.

Boerhaavia—two species.

Typha—two species.

Orchis—several species.

Some of these are in season in every period of the year, and the natives regulate their visits to the different districts accordingly. Those plants which grow in a stiff soil cannot be dug up by their implements without great difficulty in the heat of the dry season, but those which grow in a loose sandy soil can be obtained at all times. The natives have, however, a law that no plant bearing seeds is to be dug up after it has flowered; they then call them (for example) the mother of *Bohn*, the mother of *Mud-ja*, &c.; and so strict are they in their observance of this rule, that I have never seen a native violate it, unless requested by an European, and even then they betray a great dislike to do so.

The abundance of these roots varies, of course, with the nature of the soil, &c. but when there is a scarcity of any one of them, this is amply provided for by the abundance of others. In the Province of Victoria, as already stated, I have seen tracts of land several square miles in extent, so thickly studded with holes, where the natives had been digging up yams *(Dioscorea)*, that it was difficult to walk across it. Again, in the sandy desert country which surrounds, for many miles, the town of Perth, in Western Australia, the different species of *Hæmadorum* are very plentiful."

It is generally considered the province of women to dig roots, and for this purpose they carry a long,

pointed stick, which is held in the right hand, and driven firmly into the ground, where it is shaken, so as to loosen the earth, which is scooped up and thrown out with the fingers of the left hand, and in this manner they dig with great rapidity. But the labour, in proportion to the amount obtained, is great. To get a yam about half an inch in circumference and a foot in length, they have to dig a hole above a foot square and two feet in depth; a considerable portion of the time of the women and children is, therefore, passed in this employment. If the men are absent upon any expedition, the females are left in charge of one who is old or sick; and in traversing the bush you often stumble on a large party of them, scattered about in the forest, digging roots, and collecting the different species of fungus.

The roots are eaten raw, or roasted in the fire; in either case they are, most of them, very good,—some have the taste of a mild onion, and others have almost the taste and appearance of a small English potato, but of these only a single root is attached to each plant: the *mene* has rather an acid taste, and when eaten alone is said, by the natives, to cause dysentery; they never use it, in the southern districts, without pounding it between two stones, and sprinkling over it a few pinches of an earth which they consider extremely good and nutritious; they then pound the mould and root together into a paste, and swallow it as a *bonne bouche*, the noxious qualities of the plant being destroyed by the earth.

Many other roots are pounded between flat stones into a paste, and are then made into a cake, and baked. The two roots which taste the best, when cooked in this way, are the *jee-ta* and *yun-jid.*

The former of these resembles, in appearance and taste, the unripe seeds of Indian corn; it is in season in June, and is really very palatable. The latter is the root of a species of flag, and consists of a case enclosing a multitude of tender filaments, with nodules of farinaceous matter adhering to them. These are collected into a mass by pounding the root, and the cake formed from the paste is very nice. The natives must be admitted to bestow a sort of cultivation upon this root, as they frequently burn the leaves of the plant in the dry seasons, in order to improve it.

The different kinds of fungus are very good. In certain seasons of the year they are abundant, and the natives eat them greedily.

Kwon-nat is the kind of gum which most abounds, and is considered the nicest article of food. It is a species of gum-tragacynth. In the summer months the acacias, growing in swampy plains, are literally loaded with this gum, and the natives assemble in numbers to partake of this favourite esculent. As but few places afford a sufficient supply of food to support a large assemblage of persons, these Kwon-nat grounds are generally the spots at which their annual barter meetings are held, and during these, fun, frolic, and quarrelling of every description prevail.

No article of food used by the natives is more deserving of notice than the *by-yu*. This name is applied to the pulp of the nut of a species of palm; which, in its natural state, acts as a most violent emetic and cathartic; the natives themselves consider it as a rank poison: they, however, are acquainted with a very artificial method of preparing it, by which it is completely deprived of its noxious qualities, and then becomes an agreeable and nutritious article of food. Europeans who are not acquainted with this mode of preparing the nut, the stones of which they find lying about the fire-places of the natives, are frequently tempted to eat it in its natural state, but they invariably pay a severe penalty for the mistake. The following extract, from Captain Cook's * first voyage, gives one instance of this:—

"The third sort, which, like the second, is found only in the Northern parts, seldom grows more than ten feet high, with small pinnated leaves, resembling those of some kind of fern; it bears no cabbage, but a plentiful crop of nuts, about the size of a large chesnut, but rounder. As the hulls of these were found scattered round the places where the Indians had made their fires, it was taken for granted that they were fit to eat; however, those who made the experiment paid dear for their knowledge to the contrary, for they operated both as an emetic and cathartic, with great violence: still, however, it was

* Vol. 2, page 624.

not doubted but they were eaten by the Indians, and, in order to determine this more clearly, they were carried to the hogs, who might be supposed to have a constitution as strong as the Indians, although the ship's people had not. The hogs ate them indeed, and for some time apparently without suffering any inconvenience, but in about a week they were so much disordered that two of them died; the rest were recovered with great difficulty. It is probable, however, that the poisonous quality of these nuts may lie in the juice, like that of the cassada of the West Indies, and that the pulp, when dried, may be not only wholesome but nutritious."

The native women collect the nuts from the palms in the month of March, and having placed them in some shallow pool of water, they leave them to soak for several days. When they have ascertained that the by-yu has been immersed in water for a sufficient time, they dig, in a dry sandy place, holes which they call *mor-dak;* these holes are about the depth that a person's arms can reach, and one foot in diameter; they line them with rushes, and fill them up with the nuts, over which they sprinkle a little sand, and then cover the holes nicely over with the tops of the grass-tree; in about a fortnight the pulp which encases the nut becomes quite dry, and it is then fit to eat, but if eaten before that it produces the effects already described. The natives eat this pulp both raw and roasted; in the latter state they taste quite as well as a chesnut. The process which these nuts un-

dergo in the hands of the natives has no effect upon the kernel, which still acts both as a strong emetic and cathartic.

I have taken some trouble to ascertain if any traditional notion exists amongst the natives, which would in any way account for their having first obtained a knowledge of the means by which they could render the deleterious pulp of the Zamia nut a useful article of food; but in this, as in all other similar instances, they are very unwilling to confess their ignorance of a thing, and rather than do so, will often invent a tradition. Hence many intelligent persons have raised most absurd theories, and have committed lamentable errors.

The other kinds of food which I have mentioned on the list scarcely require a particular description. They are collected by the people as they rove from spot to spot, and are rather used as adjuncts to help out a meal than as staple articles of provision; several of them are, however, much liked by the natives, and they always regulate the visits to their hunting grounds so as to be at any part which plentifully produces a certain sort of food, at the time this article is in full season: this roving habit produces a similar character in the kangaroos, emus, and other sorts of game, which are never driven more from one part than from another,—in fact, they are kept in a constant state of movement from place to place; but directly an European settles down in the country, his constant residence in one spot soon sends the animals away from it, and although he

may in no other way interfere with the natives, the mere circumstance of his residing there does the man on whose land he settles the injury of depriving him of his ordinary means of subsistence.

If the land of any native is deficient in any particular article of food, such as, *by-yu*, *mun-gyte* (Banksia flowers), &c. he makes a point of visiting some neighbour, whose property is productive in this particular article, at the period in which it is in perfection; and there are even some tracts of land which abound in gum, *kwon-nat*, &c. which numerous families appear to have an acknowledged right to visit at the period of the year when this article is in season, although they are not allowed to come there at any other time. This is a curious point, and might throw some further light upon the subject of their families, or lines of descent.

It must be borne in mind, that the articles of food I have enumerated in this chapter belong only to a particular district of about two hundred miles in extent, for every degree of latitude some articles would disappear from the list, whilst other new ones would enter into it. For instance, on the North-west coast, they eat a species of oyster, (*unio*,) the almonds of the pandanus, wild grapes, guavas, the excellent fruit of a species of capparis, and many other articles which are not known upon the South-west coast; but these are procured and cooked in the same manner as the articles which I have already enumerated. My object being merely to give such an outline as would enable the reader to understand

well the mode of life of an Australian savage, I did not think such particular details necessary, as I should have been led into, had I enumerated all the sorts of food which I have seen eaten by the natives in Australia.

CHAPTER XV.

SONGS AND POETRY.

GENERAL PRACTICE OF SINGING—SONG OF AN OLD MAN IN WRATH—POETS—TRADITIONAL SONGS—NATIVE OPINION OF EUROPEAN SINGING—EXAMPLES OF SONGS FOR VARIOUS OCCASIONS — INFLUENCE OF SONGS IN ROUSING THE ANGRY PASSIONS OF THE MEN.

LIKE all other savage races, the natives of Western Australia are very fond of singing and dancing: to a sulky old native, his song is what a quid of tobacco is to a sailor;—is he angry, he sings,—is he glad, he sings,—is he hungry, he sings,—if he is full, provided he is not so full as to be in a state of stupor, he sings more lustily than ever; and it is the peculiar character of their songs which renders them under all circumstances so solacing to them. The songs are short, containing generally only one or two ideas, and are constantly repeated over and over again, in a manner doubtless grating to the untutored ear of a European, but to one skilled in Australian music, lulling and harmonious in the extreme, and producing much the same effect as the singing of a nurse does upon a child.

Nothing can give a better idea of the character of these people than their songs. In England, an

elderly gentleman, who has been at all put out of his way by encroachments and trespasses upon his property, sits over his fire in the evening, sipping his port, and brooding over vengeance by means of the law; but the law is tortuous, expensive, and uncertain; his revenge is very distant from him; under these circumstances, the more the elderly gentleman talks, the more irate he becomes. Very different is the conduct of the elderly Australian gentleman. He comes to his hut at night in a towering passion; tucks his legs under him, and seats himself upon his heels before the fire; he calls to his wife for pieces of quartz, and some dried kangaroo sinews, then forthwith begins sharpening and polishing his spears, and whilst thus occupied, sings to himself—

I'll spear his liver,
I'll spear his lights,
I'll spear his heart,
I'll spear his thigh,
&c. &c. &c.

After a while he pauses and examines the point he has been working at; it is very sharp, and he gives a grunt of satisfaction. His wives now chime in—

The wooden-headed,
Bandy-legged,
Thin-thighed fellows—
The bone-rumped,
Long-shinned,
Thin-thighed fellows.

The old gentleman looks rather more murderous,

but withal more pleasant, and as he begins to sharpen his second spear, he chants out—

I'll spear their liver,
I'll spear their bowels,
I'll spear their hearts,
I'll spear their loins.

As he warms on the subject, he ships his spear in the throwing-stick, quivers it in the air, and imitates rapidly the adventures of the fight of the coming day:—then the recollections of the deeds of his youth rush through his mind; he changes his measure to a sort of recitative, and commences an account of some celebrated fray of by-gone times; the children and young men crowd round from the neighbouring huts, the old gentleman becomes more and more vociferous,—first he sticks his spear point under his arm, and lies on his side to imitate a man dying, yet chanting away furiously all the time,—then he grows still more animated, occasionally adjusting his spear with his throwing-stick, and quivering it with a peculiar grace. The young women now come timidly up to see what is going on; little flirtations take place in the back-ground, whereat the very elderly gentlemen with very young wives, whose dignity would be compromised by appearing to take an interest in passing events, and who have therefore remained seated in their own huts, wax jealous, and despatch their mothers and aged wives to look after the younger ladies. These venerable females have a dread of evil spirits, and

consequently will not move from the fire without carrying a fire-stick in their hands; the bush is now dotted about with these little moving points of fire, all making for a common centre, at which are congregated old and young;—jest follows jest,—one peal of laughter rings close upon the heels of another,—the elderly gentleman is loudly applauded by the bystanders,—and having fairly sung the wrath out of himself, he assists in getting up the dances and songs, with which their evening terminates.

Is a native afraid, he sings himself full of courage; in fact, under all circumstances, he finds aid and comfort from a song. Their songs are therefore naturally varied in their form; but they are all concise, and convey in the simplest manner the most moving ideas: by a song, or wild chant, composed under the excitement of the moment, the women irritate the men to acts of vengeance; and four or five mischievously inclined old women can soon stir up forty or fifty men to any deed of blood by means of their chants, which are accompanied by tears and groans, until the men are worked into a perfect state of frenzy.

A true poet in Australia is highly appreciated. Simple as their songs appear, there are in them many niceties which an European cannot detect; it is probable that what is most highly estimated by this people, is that the cadence of the song, and the wild air to which it is chanted, should express well to their ideas the feelings and passions intended to predominate in the mind at the moment in

which it is sung: hence, we find, that the compositions of some of these poets pass from family to family, and from district to district, until they have very probably traversed the whole continent; the natives themselves having at last no idea of the point where they originated, or of the meaning of the words which they sing, successive changes of dialect having so altered the song, that probably not one of the original words remains; but they sing sounds analogous to these, to the proper air. And this is not confined to Western Australia, for Mr. Threlkeld, in his Australian Grammar,* says:—

"There are poets among them who compose songs, which are sung and danced to by their own tribe in the first place, after which other tribes learn the song and dance, which itinerates from tribe to tribe throughout the country, until, from change of dialect, the very words are not understood by the blacks."

A family seldom make a distant friendly visit to other tribes, but they bring back a new song or two with them, and these, for a time, are quite as much the rage as a new fashionable song in England. Occasionally the songs also bear the name of the poet who composed them, though this is not often the case; there are, however, two or three poets in Australia who enjoy a great celebrity, but whether they are living, or belonged to ancient times, or whether they are merely imaginary beings I have never been able to discover.

* Page 90.

Their own songs are, according to their idea, the very perfection of harmony, rude and discordant as they are to our ears; perhaps no more extraordinary instance of the force of habit and diversity of taste than this could be advanced. A native sings joyously the most barbarous and savage sounds, which rend asunder the refined ears of the European, who turns away in agony from the discordant noise,—while the surrounding natives loudly applaud, as soon as the singer has concluded. But should the astounded European endeavour to charm these wild men by one of his refined and elegant lays, they would laugh at it as a combination of silly and effeminate notes, and for weeks afterwards entertain their distant friends, at their casual meetings, by mimicking the tone and attitude of the white man; an exhibition which never fails to draw down loud shouts of applause.

Some of the natives are not, however, insensible to the charms of our music. Warrup, a native youth, who lived with me for several months as a servant, once accompanied me to an amateur theatre at Perth, and when the actors came forward and sang "God save the Queen," he burst into tears. He certainly could not have comprehended the words of the song, and, therefore, must have been affected by the music alone.

The only accompaniment to their songs, used in the southern parts of the continent, is the clapping of hands, or the beating of a short round stick against the flat board with which they

throw their spears; in this latter case the rounded stick is held in its centre, between the fingers and thumb of the right hand, and its ends are alternately struck against the flat board in such a manner, as to produce a rude kind of music, in time to the air they are singing. Although this appears to be so very simple an instrument, it requires some practice to beat the time accurately, and by young men who desire to have the reputation of being exquisites, this is considered to be a very necessary accomplishment.

Some songs have a peculiar dance connected with them; this, however, is not always the case, and I have occasionally seen the same dance adapted to different songs.

Having given this general outline of their songs, I will now add such a selection of them as will convey some idea of the character of their poetry, at the same time there is reason to believe that a good deal of it is traditional, and may date its origin from a very remote epoch. Some of their dances have also a very peculiar mystical character about them, and these they very unwillingly exhibit in the presence of Europeans.

The following is a very favourite song of the natives to the north of Perth; it is sung to a wild and plaintive air, and relates to some action of a native, who lived in that part of the continent, of the name of Warbunga,—a little boy, a descendant of his, is still living, who bears the same name.

Kad-ju bar-dook,
War-bung-a-loo,
War-bung-a-loo.
Kad-ju bar-dook,
War-bung-a-loo,
War-bung-a-loo,
War-bung-a-loo.

They then commence again, constantly repeating these words in the same order.

TRANSLATION.

Thy hatchet is near thee,
Oh Warbunga,
Oh Warbunga.
Thy hatchet is near thee,
Warbunga-ho,
Warbunga-ho,
Warbunga-ho.

A favourite song of the natives in the district of the Murray in Western Australia, is:—

Kar-ro yool, i, yool-ā !
Kar-ro yool, i, yool-ā !
&c. &c. &c.

And these words they go on singing for an hour together, in the event of the absence of any of their relatives or friends upon a hunting or war excursion.

TRANSLATION.

Return hither, hither ho !
Return hither, hither ho !

The following is a very good specimen of one of their comic songs,—it is often sung by the natives in the vicinity of King George's Sound.

Mat-ta, mat-ta,
Yungore bya,
Mat-ta, mat-ta,
Yungore bya,
&c. &c. &c.

TRANSLATION.

Oh what legs, oh what legs,
The Kangaroo-rumped fellows,
Oh what legs, oh what legs,
&c. &c. &c.

Nothing can awake in the breast more melancholy feelings than the funeral chants of these people. They are sung by a whole chorus of females of all ages, and the effect produced upon the bystanders by this wild music is indescribable. I will give one chant which I have heard sung upon several occasions.

The young women sing. .Kar-dang }
The old women. . . . . . .Mam-mul } gar-ro
Me-la nad-jo
Nung-a-broo.
Kar-dang }
Mam-mul } gar-ro
Me-la nad-jo
Nung-a-broo.
&c. &c. &c.

TRANSLATION.

My young brother }
My young son } again
In future shall I
never see.
My young brother }
My young son } again
In future shall I
never see.

In this chant the old and young women respectively sing "my young son," and, "my young brother:" the metre and rhyme are also very carefully preserved, and the word *Kardang* is evidently expressly selected for this purpose; for were they speaking in prose, they would use a term denoting eldest brother, youngest brother, second brother, or some similar one; whilst I have heard the word *Kardang* always used in this chant, whether the deceased was the first, second, or third brother.

The men have also certain war-chants or songs; these they sing as they go walking rapidly to and fro, quivering their spears in order to work themselves up into a passion. The following is a very common one:—

Yu-do dan-na,
Nan-do dan-na,
My-erec dan-na,
Goor-doo dan-na,
Boon-gal-la dan-na,
Gonog-o dan-na,
Dow-al dan-na,
Nar-ra dan-na.
&c. &c. &c.

TRANSLATION.

Spear his forehead,
Spear his breast,
Spear his liver,
Spear his heart,
Spear his loins,
Spear his shoulder,
Spear his thigh,
Spear his ribs,
&c. &c. &c.

Thus rapidly enumerating all the parts in which they intend to strike their enemies.

It is very rarely that any remarkable circumstance occurs, but songs are composed in order to perpetuate the remembrance of it. For example, when Miago, the first native who ever quitted Perth, was taken away in H.M. surveying vessel, Beagle, in 1838, the following song was composed by a native, and was constantly sung by his mother (at least so she says) during his absence, and it has ever since been a great favourite:

Ship bal win-jal bat-tar-dal gool-an-een,
Ship bal win-jal bat-tar-dal gool-an-een.
&c. &c. &c. &c.

Whither is that lone ship wandering,
Whither is that lone ship wandering,
&c. &c. &c. &c.

Again, on Miago's safe return, the song given below was composed by a native, after he had heard Miago recount his adventures:

Kan-de maar-o, kan-de maar-a-lo,
Tsail-o mar-ra, tsail-o mar-ra-lo.
&c. &c. &c. &c.

Unsteadily shifts the wind-o, unsteadily shifts the wind-o,
The sails-o handle, the sails-o handle-ho.

I will now add several other songs, which are composed in different dialects; these will serve both as examples of their metre and style of poetry, and as specimens for the purpose of comparison with the songs of the natives of the other portions of the continent.

No. 1.

One voice. Djal-lee-lee-na.

Chorus. Mong-a-da, mong-a-da,
Mong a-da, mong-a-da,
Mong-a-da, mong-a-da.

One voice. Eee-dal-lee-na.

Chorus. Wun-a-da, wun-a-da,
Wun-a-da, wun-a-da,
Wun-a-da, wun-a-da.
&c. &c. &c.

They all join in the chorus of—

Mong-a-da, &c. &c.
Wun-a-da, &c. &c.

And clap their hands in time to the air to which this chorus is sung, so that the effect produced is very good. I am unable to render this song into English.

No. 2.

Dow-al nid-ja kotiay bool-a,
Woor-ar wur-rang-een,
Dow-al nid-ja kotiay bool-a,
Woor-ar wur-rang-een
Dow-al nid-ja kotiay bool-a,
Woor-ar wur-rang-een.

These lines are repeated three times more, and then follows the chorus:

Chorus. Ban-yee, wur-rang-een,
Koong-arree, wur-rang-een,
Ban-yee wur-rang-een,
Koong-arree, wur-rang-een.
&c. &c. &c.

No. 3.

Kat-ta ga-roo,
Ngia
Bur-na-ri-noo.
Yar-dig-o-roo,
Ngia
Bur-na-ri-noo.
&c. &c. &c.

No. 4.

Yerib-a-balō, may-īl boyne ga-ree,
Yerib-a-balō, may-īl boyne ga-ree.
&c. &c. &c.

No. 5.

Mar-ra boor-bā, boor-bā nung-ā,
Mar-ra gul-gā, gul-gā nung-ā.

These songs give however no idea of the manner in which they chant forth their feelings. When irritated by any passionate emotions, they then pour out with the greatest volubility torrents of reproach, all in a measured cadence, and with at least the same number of syllables in each line, but even the rhyme is generally preserved; the two following translations of chants of this sort are rendered as literally into English, as the great difference between the languages permits.

The reader must imagine a little hut, formed of sticks fixed slanting into the ground, with pieces of bark resting against them, so as to form a rude shelter from the wind; underneath this were seated round a fire, five persons—an old man, and his four wives; one of these was considerably younger than

the others, and being a new acquisition, all but herself were treated with cold neglect. One of her rivals had resolved not to submit patiently to this, and when she saw her husband's cloak spread to form a couch for the new comer, she commenced chanting as follows, addressing old Weer-ang her husband.

Wherefore came you, Weerang,
In my beauty's pride,
Stealing cautiously
Like the tawny boreang,*
On an unwilling bride.
'Twas thus you stole me
From one who loved me tenderly:
A better man he was than thee,
Who having forced me thus to wed,
Now so oft deserts my bed.

Yang, yang, yang, yoh—

Oh where is he who won
My youthful heart,
Who oft used to bless,
And call me loved one:
You Weerang tore apart,
From his fond caress,
Her, whom you now desert and shun;
Out upon thee faithless one:
Oh may the †Boyl-yas bite and tear,
Her, whom you take your bed to share.

Yang, yang, yang, yoh—

Wherefore does she slumber
Upon thy breast,

* Boreang is the word for a male native dog.

† Boyl-ya is the native name for a sorcerer.

Once again to-night,
Whilst I must number
Hours of sad unrest,
And broken plight.
Is it for this that I rebuke
Young men, who dare at me to look?
Whilst she, replete with arts and wiles,
Dishonours you and still beguiles.

This attack upon her character was more than the younger female could be expected to submit to, she therefore in return chanted :—

Oh, you lying, artful one,
Wag away your dirty tongue,
I have watched your tell-tale eyes,
Beaming love without disguise:
I've seen young Imbat nod and wink,
Oftener perhaps than you may think.

What further she might have said I know not; but a blow upon the head from her rival, which was given with the stick the women dig up the roots with, brought on a general engagement, and the dispute was finally settled by the husband beating several of his wives severely about the head with a hammer.

The ferocity of the women when they are excited, exceeds that of the men; they deal dreadful blows at one another, with their long sticks, and if ever the husband is about to spear or beat one of his wives, the others are certain to set on her, and treat her with great inhumanity.

The next translation, is that of a chant sung by an old woman, to incite the men to avenge the

death of a young man, who died from a natural cause, but whose death she attributed to witchcraft and sorcery; the natives, who listened to her attentively, called her chanting "goranween," or abusing. She stood with her legs wide apart, waving her wanna, or long digging stick in the air, and rocking her body to and fro, whilst her kangaroo-skin cloak floated behind her in the wind. She was thus quite the beau ideal of a witch. The following is the sense of the words she used, at least as nearly as it is possible to express their force and meaning in English.

The blear-eyed sorcerers of the north,
Their vile enchantments sung and wove,
And in the night they issued forth,
A direful people-eating drove.
Feasting on our loved one,
With gore-dripping teeth and tongue,
The wretches sat, and gnawed, and ate,
Whilst their victim soundly slept.

Yho, yang, yho yang, yang yho.

Aye-unconsciously he rested
In a slumber too profound;
The vile boyl-yas sat and feasted
On the victim they had bound
In resistless lethargy.
Mooli-go, our dear young brother,
Where is another like to thee?
Tenderly loved by thy mother,
We again shall never see
Mooli-go, our dear young brother,

Yho, yang yho, ho, ho.

Men, who ever bold have been,
Are your long spears sharpened well?

Is the keen quartz fixed anew ?
Let each shaft upon them tell.
Poise your *meer-ros* long and true :
Let the kileys whizz and whirl
In strange contortions through the air;
Heavy dow-uks at them hurl ;
Shout the yell they dread to hear.
Let the young men leap on high,
To avoid the quivering spear;
Light of limb, and quick of eye,
Who sees well has nought to fear.
Let them shift, and let them leap,
When the quick spear whistling flies ;
Woe to him who cannot leap !
Woe to him who has bad eyes !

When one of these old hags has entered upon a chant of this kind, nothing but complete exhaustion induces her to stop, and the instant she pauses, another takes up the burden of her song. The effect some of them produce upon the assembled men is very great ; in fact, these addresses of the old women are the cause of most of the disturbances which take place. The above translations, without being exactly literal, are as near the original as I could render them. As they are entirely uttered on the spur of the moment, there is generally abundant evidence of passion and feeling about them ; and although I might have added a great variety, I think that the above will give the English reader as good an idea of the peculiar mode of address of this people, as it is in my power to do.

CHAPTER XVI.

FUNERAL CEREMONIES, SUPERSTITIONS, AND REMARKABLE CUSTOMS.

DEATH AND BURIAL OF A NATIVE NEAR PERTH—BURIAL OF A NATIVE IN THE LESCHENAULT DISTRICT—CUSTOM OF LACERATING THEMSELVES, AND WATCHING AMONG THE GRAVES—THE BOYL-YAS OR NATIVE SORCERERS—KAIBER'S ACCOUNT OF THEM—THEIR OPINION OF THE NIGHT-MARE — VENERATION FOR CRYSTAL STONES — CIRCUMCISION — OTHER CUSTOMS.

Friday, June 14, 1839.—YEN-NA came to me this afternoon to tell me that Mul-li-go was now so ill, there was but little chance of his living for many hours longer, and further to request that I would accompany him to see the sufferer. Nearly two months had elapsed since Mulligo had severely injured his spine by a fall from a tree; and immediately after the occurrence of this accident, he had completely lost the use of his lower extremities, and had day by day declined until he was now reduced to a perfect skeleton. I was, therefore, but little surprised at the intelligence which Yenna brought me; and as I was anxious to see the ceremonies that would accompany his last moments, I at once started for the native encampment.

Mulligo was a Ngotak, and had two wives,

Kok-oo-bung and Mug-ar-wit, both of the Bal-la-roke family, and neither of them deficient either in youth, or in such personal charms, as find favour in the eyes of the natives. I anticipated, therefore, that from some quarter or the other objections would be raised to allowing Miago, the uterine brother of Mulligo, (and therefore also a Ngotak,) to carry off unmolested two such attractive young widows. According to native custom, however, they of right, upon their husband's death, became the wives of Miago.

On approaching the point where Mulligo was lying, distant about a mile from Perth, I found that my anticipations were correct. I fell in with the encampment of the friends of a native named Ben-ny-yowl-ee, of the Tdon-dar-up family. This native had signified his intention of asserting his claims to the possession of one of these young women, and even some of Miago's friends were disposed to favour him. Ben-ny-yowl-ee was absent at the Canning River, with a party of natives, for the purpose of procuring spears, and thus preparing himself for coming events. His friends, however, had constructed their huts within a few hundred yards of those of Mulligo's relatives, so that in the event of the arrival of the Murray-men, who they were apprehensive would make an attempt to carry off Mulligo's wives, they might be able to assist Miago in his endeavours to prevent such an outrage, whilst at the same time their proximity to his party enabled them to see that no foul play took place.

As I passed them, they endeavoured to impress upon my mind that one wife was enough for Miago, and that if he surrendered the other to Ben-ny-yowl-ee, they would assist him against the Murray-men. I, however, resolved not to interfere in the business, and thus telling them, I bent my steps to the other encampment.

On my arrival, I found poor Mulligo sinking fast; his two wives and his mother were watching by his side. He just recognised me, and faintly and slowly said,—'men-dyke boola nganya,' (I am very ill.) The native women near him were much alarmed because he could not swallow, and to support him were slowly dropping water into his ear. His last moment was evidently near at hand, and after having felt his pulse, and paid him a few little attentions, which always gratify them much, I turned away to examine the dispositions of the encampment.

I found that Miago's hut was close to Mulligo's, and he himself was present, ready to assert his right to the wives of his dying brother, should any one appear to dispute his claims; he was evidently well supported, for the Na-gar-nook family mustered strong around his hut, and the two half-brothers of one of the ladies in dispute were members of it. We-yup, the half-brother of the other native girl was also present, and therefore evidently favoured Miago's cause. They were all in anxious expectation of the return of Moor-roon-go, who had gone off with a party for the purpose of

cutting spears, with which the friends of his step-son (Miago) might be able to act either offensively or defensively, as circumstances should require. As I conceived that there was every possibility of Mulligo's having sufficient strength left to linger through the night, and as the evening was fast closing in, after a little casual conversation with the natives, I returned home.

June 15.—Soon after day-break I reached the entrance of Mulligo's hut: he was alive, but his respiration was scarcely visible. His head rested on his mother's knees, and her withered breasts now rested on his lips, as she leant crying over him; other women were seated round, their heads all verging to a common centre, over the wasted frame of the dying man; they were crying bitterly, and scratching their cheeks, foreheads, and noses with their nails, until the blood trickled slowly from the wounds. The men in the front of the huts were busied in finishing off their spears, ready for the coming fight.

I stood for some time watching the mournful scene, but other native females soon began to arrive; they came up in small parties, generally by threes, marching slowly forward with their *wan-nas* (a long stick they use for digging up roots) in their hands; the eldest female walked first, and when they approached within about thirty or forty yards of the hut in which the dying man lay, they raised the most piteous cries, and hurrying their pace, moved rapidly towards the point where the other women were

seated, recalling the custom alluded to by Jeremiah, (ix. 17, 18:) "Call for the wailing women that they may come, and let them make haste, and take up a wailing for us, that our eyes may run down with tears, and our eyelids gush out with waters." As they came up to the bark hut, many of them struck it violently with their *wannas*, producing by the blow a dull hollow sound; they then seated themselves in the circle, scratching their faces, and joining in mournful chants, of which the one already given at page 308 was that most frequently uttered, and which, as I sat by the young men's fire, they slowly repeated to me.

The female relatives standing in the relation of mothers to Mulligo, sang—

Mam-mul, Mam-mul,
My son, my son.

Those in the relation of sister, sang—

Kar-dang, kar-dang.

And the next part was sung indifferently by both of them—

Garro, Nad-joo,
Meela,
Nung-ā-broo.

Again, I shall
Not see in future.

Then one of the women, having worked herself to a pitch of frenzy, would now and then start up, and standing in front of the hut, whilst she waved her wan-na violently in the air, would chant

forth dire imprecations against certain *boyl-yas*, or magicians, or rather wizards, who she believed to be the cause of the death of poor Mulligo. Whilst thus chanting, she faced and addressed her words to the men who were grouped around their huts, and it was strange to see the various effects produced on their minds by these harangues, working in their savage countenances: one while they sat in mournful silence; again they grasped firmly and quivered their spears; and by-and-bye a general "Ee-Ee" (pronounced in their throat, with the lips closed,) burst forth as sign of approbation at some affecting part of the speech.

Time wore on. Each withered beldame by turns addressed the party, whilst the poor wretch, the tranquillity of whose dying moments was interrupted by these scenes, gradually sank. At last the vital spark departed, and that moment an old woman started up, mad with grief and rage, tore the hut in which he had lain to atoms, saying, "this is now no good;"* and then poured forth a wild strain of imprecations against the before-mentioned *boyl-yas*. As she proceeded, the men became more and more excited, and at last Moon-dee, the most violent

* Burckhardt remarked a similar custom among the Bedouin Arabs. He says: "If the deceased have not left any male heir, or that the whole property is transferred to another family, or if his heir is a minor, and goes to live with his uncle or some other relative, the tent posts are torn up immediately after the man has expired, and the tent is demolished."—*Travels in Arabia, page* 58.

of them, started forward, and was on the point of spearing one of Mulligo's wives; none of the men attempted to interfere with him; but, as I anticipated, the women seized him, and held him, so as to prevent him from executing his purpose. This conduct on his part at first appeared to me to arise from passion alone, but the reason of it was soon explained.

It appears that some two or three months before this period, Weenat, a native of the upper part of the Swan, had stolen a cloak belonging to Miago, Mulligo's brother, and had, according to their belief, from malicious motives given this cloak to one of the native sorcerers, or *boyl-yas*, who by this means acquired some mysterious power over either Miago or his brother, but selected the latter for his victim, when he fell and broke his back. Another of these *boyl-yas* (according to the usual custom), was called in to give his advice, and he applied fire to the injured part. This treatment not succeeding, and the poor fellow wasting daily away, the natives became convinced that the unfriendly *boyl-yas* were in the habit of rendering themselves invisible, and nightly descending, for the purpose of feasting on poor Mulligo's flesh whilst he slept, and being under the influence of a charm he was not aware of what was taking place; but Moon-dee chose to imagine that if his wife had been more vigilant, the *boyl-yas* might have been detected, and hence intended to spear her in the leg, as a punishment for her imputed neglect.

As I have before stated, the women prevented this outrage from having effect, and the two trembling girls, neither of whom could have been more than fifteen, fled into Perth, to take refuge in some European's house. The native men and women, after their departure, indulged in the most unlimited abuse of *boyl-yas* in general, and of the Guildford *boyl-yas* in particular, against whom, according to the idea of the natives, they had very strong presumptive evidence, from the circumstance of the cloak having been stolen by a Guildford man. It was still very doubtful what *boyl-yas* were the actual perpetrators of the crime, so they were contented with vowing to kill a great many of them in some direction or the other, as soon as any one could detect that in which the suspected ones retired. This resolution having been formed, the men went into Perth in order to see that no strange natives stole either of the young widows, whilst the women lay weeping over the dead body.

I accompanied the men into Perth, and in the course of an hour was summoned by the natives to witness the funeral ceremony. They had moved the body about half a mile from the spot where the man died; the women still leant over it, uttering the words, *yang*, *yang*, *yang*, and occasionally chanting a few sentences.

There were but few men present, as they were watching the widows in Perth. Yen-na and Warrup, the brothers-in-law of Mulligo were digging his grave, which, as usual, extended due east and

west; the Perth boyl-ya, Wee-ban by name, who, being a relation of the deceased, could of course have had no hand in occasioning his death, superintended the operations. They commenced by digging with their sticks and hands several holes in a straight line, and as deep as they could; they then united them, and threw out the earth from the bottom of the pit thus made; all the white sand was thrown carefully into two heaps, nearly in the form of a European grave, and these heaps were situated one at the head, and the other at the foot of the hole they were digging, whilst the dirty-coloured sand was thrown into two other heaps, one on each side. The grave was very narrow, only just wide enough to admit the body of the deceased. Old Weeban paid the greatest possible attention to see that the east and west direction of the grave was preserved, and if the least deviation from this line occurred in the heaps of sand, either at the head or foot, he made some of the natives rectify it by sweeping the sand into its proper form with boughs of trees.

Before the digging of the grave was completed, many Europeans had arrived at the spot for the purpose of witnessing the ceremony; the natives were not a little annoyed at this, however they proceeded rapidly in their work, occasionally employing a spade, but from the extreme narrowness of the grave, it was by no means easy to make use of this tool. During the process of digging, an insect having been thrown up, its motions were

watched with the most intense interest, and as this little animal thought proper to crawl off in the direction of Guildford, an additional proof was furnished to the natives of the guilt of the *boyl-yas* of that place.

When the grave was completed, they set fire to some dried leaves and twigs, then throwing them in, they soon had a large blaze in it: during this part of the ceremony, old Weeban knelt on the ground at the foot of the grave, with his back turned towards the east, and his head bowed to the earth, his whole attitude denoting the most profound attention; the duty he had now to perform was a very important one, being no less than to discover in which direction the *boyl-yas*, when drawn out of the earth by the fire, would take flight. Their departure was not audible to common ears, or visible to the eyes of ordinary mortals, but his power of *boyl-ya gaduk* enabled him to distinguish these sights and sounds which were invisible and inaudible to the bystanders.

The fire roared for some time loudly in the grave, and every eye rested anxiously on old Weeban; the hollow, almost mysterious, sound of the flames as they rose from the narrow aperture, evidently had a powerful effect upon the superstitious fears of the natives, and when he suddenly raised his meerro, and then let it fall over his shoulder in a due east direction (the direction of Guildford), a grim smile of satisfaction passed over the countenances of the young men, who now knew in what direction to avenge the foul witchcraft, which they

felt assured had brought about the death of their brother-in-law. The next part of their proceedings was to take the body of Mulligo from the females: they raised it in a cloak; his old mother made no effort to prevent its being removed, but passionately and fervently kissed the cold rigid lips, which she could never press to hers again. The body was then lowered into the grave, and seated upon a bed of leaves, which had been laid there directly the fire was extinguished, the face being, according to custom, turned towards the east. The women still remained grouped together, sobbing forth their mournful songs, whilst the men placed small green boughs upon the body, until they had more than half filled up the grave with them; cross pieces of wood, of considerable size, were then fixed in the opposite sides of the grave; green boughs placed on these, and the earth from the two side heaps thrown in, until the grave was completed; which then, owing to the heaps at the head and foot, presented the appearance of three graves, nearly similar in size and form, lying in a due east and west direction.

The men having now completed their task, the women came with bundles of blackboy tops which they had gathered, and laid these down on the central heap, so as to give it a green and pleasing appearance; they placed neither meerro nor spear on the grave, but whilst they were filling in the earth, old Weeban and another native sat on their hams at the head of it, facing the one to the north, and the other to the south,

their foreheads leaning on their clasped hands, which rested on one end of a meerro, whilst the other end was placed on the ground. The ceremonies having been thus concluded, I returned to Perth.

Sunday, June 16.—This evening I walked out to Mulligo's grave, and found his old mother seated there, crying bitterly. She had indeed good reason to weep, for those infamous boyl-yas, not content with eating the flesh of her son during his lifetime, and thereby causing his death, had been detected by her in the very act of sitting round his grave, for the purpose of preying on his miserable remains. There could, it appears, be no doubt of the truth of this strange fact, for the poor old lady triumphantly pointed out their tracks, at the spot from whence they sprung into the air, in the direction of Guildford; but my eyes unfortunately were not good enough to detect the slightest vestige of any traces, either human or spiritual. However much this might have made me suspect the old lady's veracity, it had no such effect upon the natives, and being now firmly convinced that the Guildford boyl-yas were the guilty parties, they announced their intention of starting in a few days for the purpose of putting Weenat to death.

June 17.—Miago ought, according to custom, to have allowed three full days to elapse, before his brother's widows entered his hut, but as Ben-ny-yowl-ee appeared resolved not to renounce his intention of claiming the hand of one of the ladies, Mi-

ago's friends thought it more prudent to bring matters to a speedy issue, lest, in the interim, his rival might carry off Mug-a-wit, the young lady he was desirous of possessing. On Monday evening, therefore, when I went to the native encampment, I found that the first forms of the marriage ceremony had taken place, which were as follows:—

Miago ordered the two widows of his brother to prepare his hut, that as soon as the sun had set he might sleep there. Ben-ny-yowl-ee, who, with his friends and supporters were encamped within a few yards of the other party, went up to Mug-a-wit, and ordered her to follow him to his Mya, or bark hut; this she declined doing, and he immediately speared her in the thigh. Miago now, as in duty bound, threw a quartz-headed spear at Ben-ny-yowl-ee, which, if the latter had not most dexterously avoided, must have proved fatal. A general disturbance would have taken place, had not I and several other Europeans come up at the same moment, and pacified Miago, whilst Ben-ny-yowl-ee took advantage of this temporary calm to evacuate the field, followed by insulting shouts of laughter from Miago's friends.

A circumstance strongly illustrating the peculiar family customs of this people occurred this evening. Moorroongo, Miago's step-father, was a Tdondarup, and, as such, stood in the relation of *matta-gyne* to Ben-ny-yowl-ee; his hut stood, therefore, amongst those of this native's friends, and Miago's future wives remained in the care of his mother, and of

course amongst the friends of his rival. When, however, Ben-ny-yowl-ee departed, Miago's mother and the two native girls went over to the Ngotak and Nagarnook party, who were, on this occasion, united. They then built a hut for Miago, and lighted a fire; the old mother herself swept out the hut, so as to make it perfectly clean and nice; the brides then laid down in it, one on each side, so as to leave a vacant place in the centre for their new lord and master; and Miago's mother, having seen all these arrangements completed, returned once more to the hut of her husband. This was a remarkable instance of a step-father and son being, by custom, compelled to espouse opposite sides of a quarrel, because they bore different family names.

As these forms of interment have considerable interest, and are somewhat varied in their details in different localities, I have subjoined the following account of the burial of a native, as described in an extract of a letter from Mr. Bussel, a gentleman resident near the Vasse River in Western Australia:—

"The funeral is a wild and fearful ceremony. Before I had finished in the stock-yard, the dead man was already removed, and on its way to the place of interment, about a quarter of a mile from where the death took place,* and I left our house entirely guided by the shrill wailing of the female natives, as they followed, mourning, after the two men who bore the body in their arms. The dirge,

* He had been murdered by his countrymen whilst tending Mr. Bussel's cattle.

as distance blended all the voices, was very plaintive, —even musical; nor did the diminution of distance destroy the harmony entirely; some of the chants were really beautiful, but rendered perhaps too harsh for our ears, in actual contact: for as I joined myself to the procession, and became susceptible of the trembling cadence of each separate performer,—the human voice in every key which the extremes of youth and age might produce, there was a sensation effected which I cannot well describe,—a terrible jarring of the brain. The fact, that the involuntary tears rolled down the cheeks of those infants who sat passively on their mothers' shoulders, not appreciating the cause of lament, but merely as listeners, must prove that these sounds are calculated to affect the nervous system powerfully. The procession moved slowly on, and at length arrived at the place fixed upon for the burial. There had been a short silence, previous to coming thus far, as if to give the voice a rest; for as the body touched the ground, and the bearers stood erect and silent, a piercing shriek was given, and as this died away into a chant, some of the elder women lacerated their scalps with sharp bones, until the blood ran down their furrowed faces in actual streams. The eldest of the bearers then stept forward, and proceeded to dig the grave. I offered to get a spade, but they would not have it; the digging stick was the proper tool, which they used with greater despatch than from its imperfect nature could have been expected at first sight. The earth being loosened with this implement was then thrown

out with the hands with great dexterity, in complete showers, so as to form, in the same line with the grave, at both ends, two elongated banks, the sand composing them so lightly hurled, as to seem almost like drift sand on the sea shore. In the throw, if, perchance, the right limit was outstept, the proper form was retained by sweeping.

"The digging, notwithstanding the art displayed, was very tedious: they all sat in silence, and there were no chants to understand, or to fancy one understood, or perhaps to make meanings to.

"But at length the grave was finished, and they then threw some dry leaves into it, and setting fire to them, while the blaze was rising up, every one present struck repeatedly a bundle of spears with the *mearu* which they held with the butts downwards, making a rattling noise: then, when the fire had burnt out, they placed the corpse beside the grave, and gashed their thighs, and at the flowing of the blood they all said,—'I have brought blood,' and they stamped the foot forcibly on the ground, sprinkling the blood around them; then wiping the wounds with a wisp of leaves, they threw it, bloody as it was, on the dead man; then a loud scream ensued, and they lowered the body into the grave, resting on the back, with the soles of the feet on the ground and the knees bent; they filled the grave with soft brushwood, and piled logs on this to a considerable height, being very careful all the time to prevent any of the soil from falling into the apertures; they then constructed a hut over the woodstack, and one of the male relations got into it

and said,—'Mya balung einya ngin-na,'—('I sit in his house.') One of the women then dropt a few live coals at his feet, and having stuck his dismantled meerro at the end of one of the mounds, they left the place, retiring in a contrary direction from that in which they came, chanting."

The two foregoing descriptions exhibit the native funeral ceremonies as practised at Perth, and at the Vasse, on the sea-coast to the south of Perth. I shall now add a third description of the usages at King George's Sound, as given by Mr. Scott Nind, in the first volume of the Journal of the Royal Geographical Society, p. 46.

"Their funeral solemnities are accompanied by loud lamentations. A grave is dug, about four feet long, and three wide, and perhaps a yard in depth; the earth that is removed is arranged on one side of the grave, in the form of a crescent; at the bottom is placed some bark, and then small green boughs, and upon this the body, ornamented and enveloped in its cloak, with the knees bent up to the breast, and the arms crossed.* Over the body is (are) heaped more green boughs and bark, and the

* Charlevoix, in describing the funeral of the North American Indians, says,—"Le cadavre . . est exposé a la porte de la cabanne dans la posture qu'il doit avoir dans le tombeau, et cette posture en plusieurs endroits est cela de l'enfant dans la sein de sa mere." Nor was this custom confined to these races, for, in the words of Cicero, — "Antiquissimum sepulturæ genus id fuisse videtur, quo apud Xenophontem Cyrus utitur; redditur enim terræ corpus, et ita locatum ac situm, quasi operimento matris obducitur."—De Legibus, xi. 66.

hole is then filled with earth. Green boughs are placed over the earth, and upon them are deposited the spears, knife and hammer of the deceased, together with the ornaments that belonged to him; his throwing-stick on one side, and his curl (kiley) or towk (dowak) on the other side of the mound. The mourners then carve circles in the bark of the trees that grow near the grave, at the height of six or seven feet from the ground; and, lastly, making a small fire in front, they gather small boughs, and carefully brush away any portion of the earth that may adhere to them. The face is coloured black or white, laid on in blotches across the forehead, round the temples, and down the cheek bones, and these marks of mourning are worn for a considerable time. They also cut the end of the nose, and scratch it for the purpose of producing tears."

The foregoing relations of the ceremonies practised at a native funeral exhibit some instances of the way in which they lacerate themselves in the exercise of certain superstitious rites,—a custom very prevalent throughout all the yet known parts of Australia, and according with those described in the first book of Kings, chap. xviii. v. 28. "And they cried aloud, and cut themselves after their manner with knives and lancets till the blood gushed out upon them."

And again, Jeremiah, ch. xlviii. v. 37: "For every head shall be bald, and every beard clipped; upon all the hands shall be cuttings," &c.

The natives of many parts of Australia, when at a funeral, cut off portions of their beards, and singeing these, throw them upon the dead body; in some instances they cut off the beard of the corpse, and burning it, rub themselves and the body with the singed portions of it.

"It may be also remarked," says Major Mitchell,* "that a superstitious custom prevailed among the Gentiles in mourning for the dead. They cut off their hair, and threw it into the sepulchre with the bodies of their relations and friends, and sometimes laid it upon the face or breast of the dead, as an offering to the infernal gods, whereby they thought to appease them, and make them kind to the deceased."—See *Maimonides de Idol.* cxii. 1, 2, 5.

It is enjoined in Deuteronomy, ch. xiv. v. 1: "Ye are the children of the Lord your God, ye shall not cut yourselves, nor make any baldness between your eyes for the dead." Now the native females invariably cut themselves and scratch their faces in mourning for the dead; they also literally make a baldness between their eyes, this being always one of the places where they tear the skin with the finger nails.

The custom of remaining amongst the graves is found among the natives of nearly all known portions of Australia. A similar practice is reprehended in Isaiah, ch. xlv. v. 4 and 5: "A people that provoke me to anger continually to my face, that sacrificeth in gardens, and burneth incense upon altars of brick, which remain among the

* Australian Expedition, vol. i. page 254, note.

graves, and lodge in the monuments."—See also on this subject, Lewis's Origines Hebrææ, vol. iii. p. 381.

In Australia the object supposed to be obtained by this custom is a revelation as to what individual caused the death of the deceased; this revelation is made either by the means of actual visions, or by dreams.

Although the natives of the different portions of Australia have various modes of effecting the discovery of the sorcerers who caused the death of the deceased, as well as different modes of avenging his death, I feel sure that they have all one common object in view. In another part of this work I have given an account of an old woman watching by a grave with this intention; I have frequently, however, seen their sorcerers fulfil this duty; and the following extract from Mr. Threlkeld's Vocabulary will shew the prevalence of this custom on the eastern side of the continent:*—

"*Mur-ro-kun*—the name of a mysterious bone, which is obtained by the Ka-ra-kul, a doctor or conjuror, three of which sleep on the grave of a recently interred corpse; when in the night, during their sleep, the dead person inserts a mysterious bone into each thigh of the three doctors, who feel the puncture not more severe than that of the sting of an ant. The bones remain in the flesh of the doctors without any inconvenience to them, until they wish to kill any person, when by unknown means, it is said and believed, they destroy in a

* Threlkeld's Vocabulary, p. 88.

supernatural manner their ill-fated victim by the mysterious bone, causing it to enter into their bodies, and so occasion their death."

I have already had occasion to mention incidentally, on more than one occasion, the *Boyl-yas*, or native sorcerers, and their supposed powers have a mighty influence upon the minds and actions of the natives of Western Australia, in whose superstitious belief the boyl-yas are objects of mysterious dread. It is supposed that they can transport themselves through the air at pleasure, and can render themselves invisible to all but other boyl-yas. If they have a dislike to a native, they can kill him by stealing on him at night, and consuming his flesh. They enter him like pieces of quartz, and the pain they occasion is always felt. Another boyl-ya has, however, the power of drawing them out, and curing the affected person by certain processes of disenchantment. When this operation is effected, the boyl-yas are drawn out in the form of pieces of quartz, which are kept and considered as great curiosities by the natives. All natural illnesses are attributed to these boyl-yas, or to the *Wau-guls*,—hence the reason of some native being killed when another dies. The individual dies either by the hands of another native, from the effects of accident, or from some natural cause. In the first case his death is avenged on his murderer, or on some near relative of his; in either of the

other two cases, it is avenged on some connexion of the supposed boyl-yas, against whom they have a spite.

Interested by an account I had received of the boyl-yas from the women, after Mulligo's death, I endeavoured to obtain from Kaiber a more ample statement of their belief relative to these people. The difficulty I laboured under upon this head, as well as the dread they entertain of these sorcerers, will be best shewn by the following account of his answers to my questions, together with his incidental remarks :*—

"The *boyl-yas* are natives who have the power of boyl-ya; they sit down to the northward, the eastward, and southward; the *boyl-yas* are very bad, they walk away there (pointing to the east). I shall be very ill presently.

* His words were nearly as follows :—"Boyl-ya yongar boyl-ya gaduk. Djerral, way-lo, wor-rar ngin noween; Boyl-ya windoo; boko-djee wattoo; boorda nganya men-dyke ngoomon. Boyl-ya yongar boola ngan-noween, kalla moquoin,—boorda ngin-nee nganya men-dyke ngoomon. Boyl-ya donga gaduk, boorda gurrang ngoomon.—nadjoo nginnee wangow broo.

Boyl-ya koté yan-na,—ngin-nee bid-jar, bal-goon koté yan-na; koté yool yannow boyl-ya. Boyl-ya windoo-buk;—boorda ngan-neel men-dyke ngoomon; nadjoo wanga-broo. Goodjyte yool yannow. Boyl-ya wunja nginnee? Nganya goree katta mendyke. Boorda nginnee nganya goodjall waingur; Yoongar nungow broo. Boyl-ya bakkan broo koté ngan-now. Ko-tdje ngannow broo. Yel-line ngan-now, (ngin-nee nganya yonga, nadjoo wattoo yan-na.) Boyl-ya yoongar bogal boola ngin-now. Yoongar mendyke, boyl-ya wal-byne, wal-byne, wal-byne, &c. &c. boorda bar-rab-a-ra yoongar.

"The *boyl-yas* eat up a great many natives,—they eat them up as fire would;—you and I will be very ill directly. The *boyl-yas* have ears: by-and-by they will be greatly enraged. I'll tell you no more.

"The *boyl-yas* move stealthily,—you sleep and they steal on you,—very stealthily the *boyl-yas* move. These *boyl-yas* are dreadfully revengeful;—by-and-by we shall be very ill. I'll not talk about them.

"They come moving along in the sky,—cannot you let them alone. I've already a terrible headache,—by-and-by you and I will be two dead men.

"The natives cannot see them. The *boyl-yas* do not bite, they feed stealthily; they do not eat the bones, but consume the flesh. Just give me what you intend to give, and I'll walk off.

"The *boyl-yas* sit at the graves of natives in great numbers. If natives are ill, the *boyl-yas* charm, charm, charm, charm, and charm, and by-and-by the natives recover."

I could learn nothing further from him.

The *Wau-gul* is an imaginary aquatic monster, residing in fresh water, and endowed with supernatural power, which enables it to consume the natives, although it generally attacks females. The person it selects for its victim pines away almost imperceptibly, and dies.

The natives believe that the *night-mare* is caused by some evil spirit. The way in which they get rid of this evil being is by jumping up, seizing a

lighted brand from the fire, twirling it round the head, and muttering a variety of imprecations; they then throw the stick away in the direction they conceive the spirit to be in. Some of them have explained this custom to me, by stating that this evil spirit wants a light, and that when he gets it, he will go away. They however, also, take the precaution of moving their position, and getting as far as they can into the group of natives who are sleeping round the fire.

If they are obliged to move away from the fire after dark, either to get water, or for any other purpose, they carry a light with them, and set fire to dry bushes as they go along.

The natives of South-western Australia likewise pay a respect, almost amounting to veneration, to shining stones or pieces of crystal, which they call "Teyl." None but their sorcerers or priests are allowed to touch these, and no bribe can induce an unqualified native to lay his hand on them.

The accordance of this word in sound and signification with the Bætyli mentioned in the following extract from Burder's Oriental Customs, (vol. i. page 16,) is remarkable.

"And Jacob rose up early in the morning, and took the stone that he had put for his pillow, and set it up for a pillar, and poured oil upon the top of it, and he called the name of that place Be-thel." Genesis, xxviii. 18.

"From this conduct of Jacob and this Hebrew appellation, the learned Bochart, with great inge-

nuity and reason, insists that the name and veneration of the sacred stones called Bætyli, so celebrated in all Pagan antiquity, were derived.

"These Bæ-tyli were stones of a round form, they were supposed to be animated by means of magical incantations, with a portion of the Deity; they were consulted on occasions of great and pressing emergency as a kind of divine oracle, and were suspended either round the neck or some other part of the body."

That this veneration for certain pieces of quartz or crystal is common over a very great portion of the continent, is evident from the following extracts from Threlkeld's Vocabulary, p. 88.

"*Mur-ra-mai.*—The name of a round ball, about the size of a cricket-ball, which the Aborigines carry in a small net suspended from their girdles of opossum yarn. The women are not allowed to see the internal part of the ball; it is used as a talisman against sickness, and it is sent from tribe to tribe for hundreds of miles on the sea coast, and in the interior; one is now here from Moreton Bay, the interior of which, a black shewed me privately in my study, betraying considerable anxiety, lest any female should see its contents.

"After unrolling many yards of woollen cord made from the fur of the opossum, the contents proved to be a quartz-like substance of the size of a pigeon's egg, he allowed me to break it and retain a part. It is transparent like white sugar-candy; they swallow the small crystalline particles which crumble

off as a preventative of sickness. It scratches glass, and does not effervesce with acids. From another specimen, the stone appears to be agate of a milky hue, semi-pellucid, and strikes fire. The vein from which it appears broken off, is one inch and a quarter thick. A third specimen contains a portion of cornelian, partially crystallized, a fragment of chalcedony, and a fragment of a crystal of white quartz."

And again in Mitchell's Expeditions into Australia, vol. 2. p. 338 :—"In these girdles the men, and especially their coradjes or priests, frequently carry crystals of quartz or other shining stones, which they hold in high estimation, and very unwillingly show to any one; invariably taking care, when they do unfold them, that no woman shall see them."

Genesis, ch. xxiv. ver. 9. "And the servant put his hand under the thigh of Abraham his master, and sware to him concerning that matter."

This is exactly the form that is observed in South-western Australia, when the natives swear amity to one another, or pledge themselves to aid one another in avenging a death.

One native remains seated on the ground with his heels tucked under him, in the Eastern manner; the one who is about to narrate a death to him, approaches slowly and with averted face, and seats himself cross-legged upon the thighs of the other; they are thus placed thigh to thigh, and squeezing their bodies together they place breast to breast—

both then avert their faces, their eyes frequently fill with tears—no single word is spoken; and the one who is seated uppermost, places his hands under the thighs of his friend; having remained thus seated for a minute or two, he rises up and withdraws to a little distance without speaking—but an inviolable pledge to avenge the death has by this ceremony passed between the two.

One remarkable custom prevalent equally amongst the most ancient nations of whom any records are preserved, and the modern Australians, is that of naming children from some circumstance connected with their birth, or early infancy. Thus in Genesis, ch. xxx. ver. 11. "And Leah said, A troop cometh, and she called his name Gad;" &c. &c. &c.

Burckhardt observed the same custom among the Bedouins and says, "A name is given to the infant immediately on his birth; the name is derived from some trifling accident, or from some object which had struck the fancy of the mother or any of the women present at the child's birth."—Notes on the Bedouins, p. 55.

The natives of the Gulf of Carpentaria, and also those on the eastern shores of St. Vincent's Gulf, practise the rite of circumcision. That is, this remarkable rite is known to be observed in two points of the Continent of Australia exactly opposite to one another, and which are separated by a distance of about twelve hundred miles.

The injunctions contained in Deuteronomy, ch. xxiii, ver. 12, and 13, are literally fulfilled by the natives in several parts of the continent. In addition to my own testimony on this point, I will refer to "Wilson's Voyage round the World," p. 165, where he states, "They are cleanly in their manners, and, in some respects, superior to the Europeans, fulfilling the injunction of Moses in the twelfth and thirteenth verses of the twenty-third chapter of Deuteronomy."

This passage relates to the natives of Raffles Bay on the extreme north of the continent of Australia, whereas I have observed the custom in the South-western parts of Australia.

They also conform strictly to the injunctions in Leviticus, ch. xv. ver. 19.

CHAPTER XVII.

CHARACTERISTIC ANECDOTES.

MIAGO'S IMAGINARY SPEECH AS GOVERNOR — WARRUP'S ACCOUNT OF HIS JOURNEY WITH MR. ROE—TRANSACTIONS WITH THE NATIVES IN A CASE OF POTATOE STEALING—JUDICIAL CASE OF ASSAULT.

THE following casual anecdotes, though trivial in themselves, will assist in illustrating some of the peculiarities of the native mind and character.

Speech that the native Miago would have addressed to the aborigines of Perth, if he had landed as Governor, instead of His Excellency Mr. Hutt. He came into my room directly after the Governor had landed, and made this imaginary address.

Yice, naga yongar Perth bak-ad-jee yuado—Moon-dee Moondee gurrang, gurrang boola: Mir-ga-na, Mir-ga-na gurrang, gurrang boola: Yal-gon-ga, Yal-gon-ga, gurrang, gurrang boola; yarn bal?

Buck-il-bury Wattup gidjee, yam bal gurrang boola?

Bun-bury gurrang, gurrang boola.

Golam-bidie gwab-ba: Mam-me-rup wan-gow-een boola.

Goo-lam-bidie wilgey nab-bow, yago mial, Goo-lam-bidie donga broo: mam-me-rup meno been boola, mam-me-rup gurrang ga-duck, golambidie gid-jee; Dule.

Waumma Governor yool: yahi Perth yongar bak-ad-jee yu-a-do; gwab-ba-litch.

"Henceforth this people of Perth must not fight. Moon-dee, Moon-dee, you are always quarrelling—Mir-ga-na, Mir-ga-na, you are always quarrelling—Yal-gon-ga, Yal-gon-ga, you are quarrelsome—what is the reason of this?

"Bucklebury speared Wattup, what reason had he to be in such a passion, (or, why was he so very angry)?

"Bun-bury, you are very quarrelsome.

"The young men behave very well, the old ones are always wrangling.

"The young men paint themselves, and the women look at them; the young men are not aware of this, but the old men are very jealous—and being in a passion spear the young men—this is very wrong.

"Now another Governor is come, and you people of Perth must fight no more—This is very good."

The following is Warrup's account of his journey with Mr. Roe, in search of the party left by me under Mr. Walker.—(See page 105.)

"1st day.—At Dundalup we eat fish; then onwards, onwards, onwards, till we slept at Neerroba.

"2nd day.—Onwards, onwards, till we reached Nowergoop, where the horses drank water; then onwards, onwards, onwards, until Manbabee, where we eat flesh and bread. Onwards, onwards, onwards, until Yungee, where we shot ducks, and the horses drank water. Onwards,

onwards, onwards, onwards, to Boongarrup, where we slept one *sleep*.

"3rd day.—Onwards through a forest, onwards through a forest, onwards through a forest. We slept at Neergammy, a pleasant resting-place; the land was good, the herbage good; pleasant was our resting-place, and our hut was good.

"4th day.—Onwards, onwards, onwards, we entered a woody country. Onwards, through a forest, onwards through a forest; we now see the waters of Kajeelup: we eat flesh and bread. Onwards through the forest, onwards through the forest, onwards through the forest. We see the tracks of natives; we shout aloud, and then proceed conversing with natives; they sit down.* Onwards go we, onwards, onwards, onwards; the horses drink water; by-and-bye, we see tracks. Onwards, onwards, onwards; we see a large water; we shoot ducks. On the one side we see two waters, on the other side one water we see. Onwards, onwards, onwards, onwards, onwards; we see no other water. Onwards through the forest, onwards through the forest, onwards through the forest; we see a river. You had here eaten fresh-water muscles: at this river we sleep. Barramba is the place's name.

"5th day.—Onwards through the forest, through the forest, through the forest, through the forest onwards; water we see not. Through the forest onwards; through the forest onwards; we see a water, but a worthless water. Yours and Kaiber's

* They halt or remain.

footsteps we see. Here there is no grass. You had here shot a bird,—a cockatoo you shot. Maribara was this place's name.

"Onwards through the forest, through the forest onwards, through the forest onwards; we see no other water; the herbage is worthless. We still go onwards, onwards through the forest. We see natives; a few natives we see: the men are two, the women one, the children two. We see the place called Nowergup.

"We say, 'Where is there water? here the water is bad.' The natives say, 'Yonder the water is good,—here it is bad: at Boranyup the water is good.'

"We go onwards, onwards, onwards: at Boranyup we sleep;—rain falls as we sleep at Boranyup.

"6th day.—Onwards through the forest, onwards through the forest, onwards through the forest; some of the others sit down; Auger sits down; Hunt sits down. Mr. Roe, Mr. Spofforth, and I on horseback, go onwards, onwards, onwards, onwards, through the forest onwards, through the forest onwards, through the forest onwards, through the forest onwards. We see the sea; then onwards, onwards, onwards; along the sea-shore onwards, along the sea-shore onwards, along the sea-shore onwards. We see the tracks of white men.

"Then we turn back again, away we go back again, back again away; through the forest away, through the forest away, through the forest away; back again. We move, move, till we sit at Boranyup; we then eat kangaroo; Hunt and Auger

had brought it in. At Boranyup we lie down: we sleep.

"7th day.—The next day away, away, away, away, returning, returning, on our tracks returning, on our tracks returning, on our tracks returning. At Barramba we sit down: we eat bread and meat; they eat fresh-water muscles; the natives eat not fresh-water muscles.

"Away, away, away, away, away; we see the water of Djunjup; we shoot game. Away, away, away, through a forest away, through a forest away; we see no water. Through a forest away; along our tracks away, along our tracks away, along our tracks away, along our tracks away. We sleep at Ka-jil-up: rain falls; the water here is good: the horses feed,—well did the horses feed.

"8th day.—Away, away; along our tracks away, along our tracks away; hills ascending: then pleasantly away, pleasantly away, away; through a forest away, through a forest away, through a forest away; we see a water,—the water of Goonmarrarup. Along the river away, along the river away; a short distance along the river we go: then away, away, away, through a forest away; a short distance through a forest we go.

"Then along another river away, away; we cross the river; away, a short distance away. At Neergammy we sleep, raising huts.

"The others continue returning; we go away, away: in the forest we see no water; we see no footsteps; we see some papers,—the papers put by

Mr. Mortimer we see: still we go onwards, along the sea away, along the sea away, along the sea away: through the bush away, through the bush away: then along the sea away, along the sea away. We see white men,—three of them we see; they cry out, 'Where is water;' water we give them,—brandy and water we give them. We sleep near the sea.

"Away, away go we (I, Mr. Roe, and Kinchela), along the shore away, along the shore away, along the shore away. We see no fresh water; along the shore away, along the shore away. We see a paper, the paper of Mortimer and Spofforth. Away we go, away, away, along the shore away, away, away, a long distance we go. I see Mr. Smith's footsteps ascending a sand-hill, onwards I go regarding his footsteps. I see Mr. Smith dead. We commence digging the earth.

"Two *sleeps* had he been dead; greatly did I weep, and much I grieved. In his blanket folding him, we scraped away the earth.

"We scrape earth into the grave, we scrape the earth into the grave, a little wood we place in it. Much earth we heap upon it—much earth we throw up. No dogs can dig there, so much earth we throw up. The sun had just inclined to the westward as we laid him in the ground."

The following are extracts from a journal kept by me whilst resident at King George's Sound.

Thursday, Jan. 23.—Directly after breakfast, a soldier came to me with a complaint, that the

natives had last night robbed his garden in the settlement of nearly one hundred weight of potatoes; I was determined to have here no repetition of scenes similar to what had recently taken place; and therefore, resolved to act promptly and vigorously upon this first offence.

My first object was, in my punishment, not to involve the innocent and guilty together, which is too often done by the Europeans in these colonies.

I therefore got hold of an intelligent native of the name of Moyee-e-nan, and accompanied by him, visited the garden whence the potatoes had been stolen; he found the tracks of three natives, and availing himself of the faculty which they possess of telling who has passed from their footmarks, he informed me that the three thieves had been the two wives of a native of the name Peerat, and a little boy named Dal-be-an, the son of Peerat. Being now well acquainted with the natives, I was well satisfied that this evidence was of the most conclusive nature, and proceeded to act upon it by trying to arrest the delinquents; but I found that they had, immediately after committing the theft, walked off into the bush, thereby hoping to avoid suspicion, and with the intention of remaining absent until the affair had blown over.

My mind was soon made up to pursue my friend Peerat and his fugitive wives, but it was necessary that I should proceed with great caution, in order not to alarm the guilty parties when they saw us approaching, in which case I should have had no

chance of apprehending them; and I did not intend to adopt the popular system of shooting them when they ran away. I therefore determined to take no Europeans, but only four natives, who could track the delinquents.

Previously, however, to my quitting the town, one gentleman joined me, and thus reinforced, we started on Peerat's tracks; these we followed for about seven miles in a W. by N. direction from the settlement, when we suddenly saw the bush set on fire, and thus became aware of our proximity to a party of natives. My European friend was here unfortunately taken ill, and as the natives were evidently more numerous than I expected to have found them, I was sorry to lose his services at this period; he, however, faithfully promised to await my return, and I thus knew that I had a point d'appui to retire on, in the event of any thing taking place.

Accompanied by the natives, I now pressed forward in the direction of the fire, and after proceeding for about two miles further in a W. by N. direction, I fell in with several natives, one of whom was old Too-lee-ga-twa-lee, well known in the settlement. I at once intimated to Mr. Too-lee-ga-twa-lee and his friends the object of my mission; I told them that Peerat's wives and son had stolen potatoes—that I had come out to make them prisoners—that if they were given up to me, they should only undergo the regular punishment for petty theft; but if they were not delivered over

that I would stop the regular allowance of flour which was issued to all the natives every two months,—thus punishing them all; and that I would, moreover, return home, and then come out with a party of soldiers and fire upon Peerat and his party wherever I found them. This last part of my announcement was made in a very decided tone, and with a most ferocious look. The natives hereupon entered into a deliberation amongst themselves, and eventually were unanimously agreed on several points, as follows:—

Imprimis.—That stealing potatoes was a very heinous offence, more particularly in women.

2ndly, That women were notorious thieves, and altogether worse characters than men.

3rdly, That beating women was an every day occurrence.

4thly, That losing flour was a great bore; and

5thly, That in consequence of the above considerations, they would give Peerat, his wives, and son, up to me.

Each of these propositions was lengthily discussed by them, but when they were all agreed to, they came in a body and asked me, did I speak the truth, and lie not, when I said that I myself was not angry with Peerat and his wives, and that they should not be killed but only slightly punished? I assured them that I told the truth, and lied not. We then proceeded in a body in search of Peerat, whom we found with some more natives, about half a mile further on.

He waited quietly to receive us, not having indeed the slightest idea of what was the object of my unexpected visit; when however he heard what I wanted, he abused his wives in most unmeasured terms, and assured me that he would thrash them soundly, but as to giving them up prisoners, or his son either, that he declared he would not do; and then very openly and fairly challenged any one of the other natives, or all of them together, to take him up, assuring them that he would spear the first man through the heart that attempted to lay a finger on him. I interfered so far in this dispute as to announce to Peerat, that I considered my own person as sacred, and I then cocked both barrels of my double-barrelled gun, and concluded by assuring him, I should shoot him if he resisted me.

All native altercations are vociferous and noisy in the extreme, and are usually accompanied with a great deal of running and leaping about, and quivering of spears; these circumstances I now took advantage of, and whilst the others threatened to spear one another in all imaginable places, I wended my solitary way towards Peerat's fire, where I discovered Master Dal-be-an, but could see nothing whatever of the ladies, who, I presume, were absent digging roots.

The young native was seized hold of before he could attempt to escape; and as I told him if he now moved I should shoot him, he accompanied me very quietly; the others meanwhile capering about and abusing one another in the distance. Peerat,

however, soon found out what had taken place, and came running after me. These natives are always ardently attached to their children, and this the boy's father now evinced, in the strongest manner: he first of all declared that the boy had been asleep with him, and that it was the mother only who had stolen; and he produced about a dozen witnesses who all asserted that this was the case. I however refuted this evidence by mentioning the fact of his footmarks being in the garden. They then urged that Peerat's second wife had also been engaged in the theft, and that she was just the size of the boy; this, however, again was over-ruled from the fact of her footmarks having been also seen there.

The father now urged upon me the youth of the boy, and that he was under the influence of the mother, and then fairly wept upon his child's neck, who begged his father, and all the other natives by name, to save him. I was now holding him by the wrist, for the feeling of the public began at this affecting exhibition to turn against me, even my own natives urging me to let the little fellow go; had I followed the dictates of my own heart, I should have done so, but I knew that by being in this instance very determined, I should effect eventually much good—I therefore held fast by my prisoner. I now saw some of the other natives giving Peerat spears, which is always a sign that they espouse a man's quarrel, and expect him to make use of the weapons they give him. As matters

therefore now wore rather a serious aspect, I again told Peerat that I, personally, had no cause of quarrel with him, but that I was resolved not to allow either the natives to wrong the Europeans, or the Europeans to wrong the natives; that it was far better for the natives themselves that I, an impartial person, should see that they were properly punished for theft, than that the Europeans should fire indiscriminately upon them, as had lately been done in another quarter; that I should now talk no more, but that if he did not instantly take himself off, and bring his wives in to the settlement to be punished, I would shoot him. He proceeded again to answer me, but I cut him short, by saying, that if he spoke again I would shoot him at once; I thus had the last speech, and therefore, as a matter of course, was in possession of the public favour: Peerat was consequently hurried off by his friends, whilst myself, the young prisoner, and two of the natives who had accompanied me, started on our return for the settlement.

Although the affair had so far terminated well, I was by no means sure that Peerat might not, after my departure, induce the others to attempt a rescue. I therefore hurried on to the spot where I had left my European friend, but I only found a slip of paper on a tree, with the following words on it: "Returned slowly to the settlement." We moved rapidly on again, and reached Albany without further adventure, and on our arrival I lodged Dal-be-an in the jail.

January 24.—Peerat did not bring in his wives, and to all the solicitations which were offered me on the part of the natives for the release of my little prisoner—I answered, that when Peerat's wives were brought in, and given over to the hands of justice, I would punish the boy and release him; but if the other delinquents were not given up, I should conceive it to be a sign that the natives were not satisfied with my decision, and therefore send the boy on to Swan River to be tried. I further added, that if Peerat did not in the course of the next day appear with his wives, I should cease to act as mediator, and taking a party of soldiers would go out and apprehend him.

January 25.—This morning information was given me that little Dal-be-an had made an attempt to break out of jail. I therefore went up to the jail with another magistrate, and found that the little fellow had yesterday, during the absence of the turnkey, taken up a loose stone from the floor, and had battered a hole in the door with it. It evinced altogether more strength and determination than one could have supposed such a boy to have been endowed with. When I taxed him with it, he stoutly denied it, asserting that whilst he was asleep, sorcerers from the north, who had a spite against him, had entered the cell through some air holes in the wall, and had done this; and in spite of all our cross-questioning, and charging him with falsehood, he still persisted in the same tale, and really appeared to think that he could per-

suade us of the truth of the assertion. I told him, that it was his duty to have taken care that these sorcerers had not injured the door, and that in future if he did not give the alarm when they came, he should be well whipt for neglect, and that in the meantime I had a great mind to have him whipt for telling a story; I however satisfied myself by giving him a severe lecture upon the crime of lying. He defended himself upon this head, by ingenious arguments, altogether overlooking the abstract question of whether lying was a virtue or a vice, and defending himself solely upon the plea of its general usefulness and prevalence in the world. I got rather worsted in the argument, and therefore, confining myself to admonitions and a few common-place maxims, I departed.

In the course of the forenoon, Peerat presented himself at my window. The tale he told was a very pitiful one. He had two wives, and to govern them both required no ordinary ability; he assured me that he had beaten them both soundly, but notwithstanding, he could not induce them to come into the settlement, until finally losing his temper, he had threatened to spear them, and had thus induced them to follow him; he assured me that he had done nothing but weep and lament since he had last seen me, at one time for the loss of his son, and then, again, at the obstinacy and bad temper of his wives, and as some recompense for his sufferings he begged to be allowed to beat his wives himself.

I told him to bring them at once to the garden they had robbed, and then, followed by several natives, I repaired to the appointed place. The native women soon appeared, dreadfully cut and mangled from the beating they had already suffered. One was a nice looking girl, about fourteen, but an incorrigible thief. Peerat threw back his skin, to give his arm fair play, and then brandishing his meerro, was going to hit her a tremendous blow upon the head, which must have laid it open. The poor girl stood with her back towards her husband, trembling and crying bitterly. I caught Peerat's arm, picked up a little switch from the ground, and told him to beat her on the shoulders with that. He gave her two slight blows, or rather taps, in order to know where it was I meant him to strike; but the poor girl cried so bitterly from fear, that I stopped him, told her that for this time she should be pardoned, and then called the other woman up, but she had already been severely beaten, and had at that moment a little child sitting on her shoulder, who cried piteously when he saw his mother weeping—so I let her also go free. Before they started, however, I gave them, and the assembled natives a lecture—talking to them in a ferocious style about my future intentions in the event of robbery being committed, and warning them not to judge of me from my present clemency.

During the five months I had been at King George's Sound, this was the first act of petty

theft, or indeed of theft of any kind, committed by the natives; there had, on several occasions, been as many as two hundred in the settlement, who had no means of subsistence but a chance job from the colonists, and the spontaneous productions of the earth—yet during that period the only criminals had been those above mentioned, viz. a woman, a girl, and a boy, who had rooted up some potatoes from a retired garden, and they had even purposely left the large potatoes and had only taken away the small ones, in the hope that by so doing they would lessen the crime.

In the afternoon I walked up to the jail attended by Peerat, his wives, and a crowd of natives, to release little Dalbean. Peerat and myself alone entered the jail; I told the jailor to hand him the whip, he took it, and said, "Yes, yes, I will strike him; let not another beat him, Governor."

The door of the cell was then opened, and the little boy was led out: his father ran up to him, caught him in his arms, and began kissing him; having done this, he told him he was going to beat him—the little fellow did not answer a word, but standing as firm and erect as possible, presented his back to him, the father gave him one blow, and it was ended—justice was satisfied; the criminals had surrendered to salutary laws, of which they had but a vague and undefined knowledge.—It was their first offence; I explained to them the nature of the laws they had broken, warned them to be careful in their future conduct, and let them go.

Little Dalbean, directly we got outside the jail, walked up to me, took my hand, and squeezed it, and then turned to his mother; he just looked at her, she cried, but did not dare to kiss him, or to show any symptom of emotion; and the whole party, after showering thanks innumerable upon my head, moved off, saying, "What a good fellow—what a good fellow;" or, to give a literal translation, "One good man—one good man."

Sunday, January 26.—Old Manniotte, a native dressed in an old uniform, attended the church service as usual this day, and was apparently as attentive as any other member of the congregation.

February 14.—This evening a native came up to me as I was in the Commissary's house, and said:—"Djanga kain nganya goree bomb-gur;" "a white man has just struck me;"—at the same time he shewed me his side which was severely bruised. I accompanied him to the beach, and there found a number of liberty men from some American whalers walking about. There were also several natives on the beach who were in a state of great excitement, and came hurrying up to me. I had sent for the constable, and as I was coming up I saw a sailor moving off to the boats, on which the natives all shouted out, "Now, now, walk away."

The natives were soon satisfied that strict justice would be done them, and as the sailor who had struck the native was a man belonging to the

Russel, commanded by Captain Long, who had previously taken me to Sharks Bay, it was arranged with him that the offender should be brought before me at 11 o'clock the next day to answer the charge.

February 15. — This morning Taal-wurt, the native, attended by his various friends, came to me before I went to the Court-house, to insist upon his right to speak first, as he appeared to think that a great deal depended upon his having this advantage over his opponent. I explained to him that, as plaintiff, this right of course belonged to him, and he thereupon withdrew, followed by his adherents. At the appointed hour I repaired to the Court-house, and found the natives assembled; the Europeans had not yet arrived. I called therefore upon Taal-wurt for an information, which was as follows :—

Colony of Western Australia, *to wit.* } The information and complaint of Taal-wurt Tdon-dar-up, of Albany, in the said Colony, made before me, Geo. Grey, Esq. one of H. M. Justices of the Peace in and for the said Colony, the fifteenth day of February, in the year of our Lord one thousand eight hundred and forty.

The said Taal-wurt Tdon-dar-up complaineth and saith—

" Nganya kype yoor-ril gool-gur, boye bomb-gur.

" I in the water carelessly walked along, a stone struck me."

But at this point his eloquence totally deserted him, and he was pulled back by his friends, who

pushed forward another native, and who stated as follows :—

Lin-doll .Mongalung saith :—" Wal-bur wat-to Taal-wurt: Djanga Taal-wurt kyle-gut bomb-gur.

" Taal-wurt djanga neyp bomb-gur, kyle-gut Taal-wurt neyp bomb-gur: Waum djanga Taal-wurt matta boorn boola bomb-gur: Taal-wurt yoor-ril watto, waum djunga nar-rail ngob-barn boye koombar bomb-gur."

" Along the beach was walking Taal-wurt; one of the dead struck him under the ear. Taal-wurt then very slightly struck this one of the dead; under the ear Taal-wurt very lightly struck him. Another of the dead then struck Taal-wurt very forcibly on the legs with a stick: Taal-wurt went walking along quickly; another of the dead, in the ribs with an exceedingly big stone, extremely hard hit him."

A murmur of applause ran through the assembled natives. The *ngob-burn boye, koom-bur bomb-gur*, or exceedingly big-stone, extremely hard hit—was evidently regarded by them as a master-piece of eloquence; and the contrast between this and the *neyp bomb-gur*, very gently struck, of Mr. Taal-wurt, undoubtedly evinced its superiority in their estimation; but as Taal-wurt was a stout able fellow, and one by no means given to deal gentle blows when in a passion, I did not place implicit faith in this poetical narration. I had, however, no doubt that Taal-wurt had been first struck, and was thus the injured party; but now I knew he had returned

the blow, I was also sure that he had given at least as good a one as he had taken.

The case therefore did not tell in Taal-wurt's favour as much as I expected it would; and on the offender being produced, I found that he was a native from the island of Timor, and not much more civilized than his opponent. The mate of the vessel who came up with him, stated that the man bore an excellent character, and that he was willing to make any compensation Taal-wurt might require. Before the case came on I had explained this to the King George's Sound native, who compounded the matter for half-a-crown, and then walked off with his friends, fully resolved to get assaulted again upon the first good opportunity.

CHAPTER XVIII.

INFLUENCE OF EUROPEANS ON THE NATIVES.

CAUSES WHY IT HAS NOT HITHERTO BEEN BENEFICIAL—WRETCHED STATE OF THE NATIVE POPULATION—PREJUDICES AGAINST THEM — EVIL EFFECTS FROM THEIR FEROCIOUS CUSTOMS REMAINING UNCHECKED—PLAN FOR PROMOTING THEIR CIVILIZATION.

After reviewing the condition of the Aborigines of Australia, as it appears to have existed from time immemorial, it will not be irrelevant to examine what change or amelioration of their social state is likely to arise from the settlement of a civilized European race among them.

The colony of Swan River differing materially in the elements of its population from those established in the eastern parts of this continent, and in Van Diemen's Land, a corresponding change in the intercourse existing between the natives and the white population might naturally be looked for.

In modern times, with the exception of the new settlement of South Australia, no colony has been established upon principles apparently so favourable for the development of the better qualities of the Aborigines, and with so fair a chance of their ultimate civilization.

The apparent advantages are that no convicts

have been brought to Western Australia to corrupt the manners of either sex, or to lead them astray by their vicious example ; and that a great want of labour has been always felt, so that any assistance that could have been procured from the natives, would have been a material benefit to the settlers.— With these advantages we might have hoped to see some important results.

I wish not to assert that the natives have been often treated with wanton cruelty, but I do not hesitate to say that no real amelioration of their condition has been effected, and that much of negative evil and indirect injury has been inflicted on them.

The first great fault committed was, that no distinct rules and regulations were drawn up for the protection of the Aborigines. Their land is taken from them, and the only benefit given in return is that they are made British subjects— that is, having a right to the protection of British Laws, and at the same time becoming amenable to them.

All past experience has shewn that the existence of two different races in a country, one of which, from any local circumstances, is considered inferior to the other, is one of the greatest evils under which a nation can labour; a more striking instance of which could not be adduced, than is shewn in the present state of the free coloured population in America.

In contemplating, then, the future destiny of the

Australian races, at the same time laying aside all thought of their amalgamation with Europeans, the prospect is most melancholy—only two cases can arise; either they must disappear before advancing civilization, successively dying off. ere the truths of christianity, or the benefits of civilization have produced any effect on them,—or they must exist in the midst of a superior numerical population, a despised and inferior race; and none but those who have visited a country in which such a race exists, can duly appreciate the evils both moral and physical, which such a degraded position entails upon them.

If we enquire into the causes which tend to retain them in their present depressed condition, we shall find that the chief one is—'prejudice.' The Australians have been most unfairly represented as a very inferior race, in fact as one occupying a scale in the creation which nearly places them on a level with the brutes, and some years must elapse, ere a prejudice so firmly rooted as this can be altogether eradicated, but certainly a more unfounded one never had possession of the public mind.

Amongst the evils which the natives suffer in their present position, one is an uncertain and irregular demand for their labour, that is to say, they may one day have plenty of means for exerting their industry afforded them by the settlers, and the next their services are not required; so that they are necessarily compelled to have recourse to their former irregular and wandering habits.

Another is the very insufficient reward for the services they render. As an example of this kind, I will state the instance of a man who worked during the whole season, as hard and as well as any white man, at getting in the harvest for some settlers, and who only received bread, and sixpence a-day, whilst the ordinary labourers would earn at least fifteen shillings. In many instances, they only receive a scanty allowance of food, so much so, that some settlers have told me that the natives left them because they had not enough to eat.

The evil consequence of this is, that a native finding he can gain as much by the combined methods of hunting and begging, as he can by working, naturally prefers the former and much more attractive mode of procuring subsistence, to the latter one.

Many of the natives have not only a good idea of the value of money, but even hoard it up for some particular purpose; several of them have shewn me their little treasure of a few shillings, and have told me it was their intention to save more until they had enough to buy a horse, a gun, or some wished-for article, but their improvidence has always got the better of their thriftiness, and this sum has eventually been spent in treating their friends to bread and rice.

Another evil is the very extraordinary position in which they are placed with regard to two distinct sets of laws; that is, they are allowed to exercise their own laws upon one another, and are again

held amenable to British law where British subjects are concerned. Thus no protection is afforded them by the British law against the violence or cruelty of one of their own race, and the law has hitherto only been known to them as the means of punishment, but never as a code from which they can claim protection or benefit.

The following instances will prove my assertion: In the month of October, 1838, I saw early one morning some natives in the public street in Perth, in the act of murdering a native woman, close to the store of the Messrs. Habgood; many Europeans were present, amongst others a constable; but there was no interference on their part until eventually the life of the woman was saved by the courage of Mr. Brown, a gardener in Perth, who rushed in amongst the natives, and knocked down the man who was holding her; she then escaped into the house of the Messrs. Habgoods, who treated the poor creature with the utmost humanity. She was, however, wounded in several places in the most severe and ghastly manner.

A letter I received from Mr. A. Bussel, (a settler in the southern part of the colony,) in May, 1839, shews that the same scenes are enacted all over it. In this case, their cow-keeper, (the native whose burial is narrated at p. 330,) was speared by the others. He was at the time the hired servant of Europeans, performing daily a stated service for them; yet they slew him in open day-light, without any cause of provocation being given by him.

Again, in October, 1838, the sister of a settler

in the northern district, told me that shortly before this period, she had, as a female servant, a most interesting little native girl, not more than ten or eleven years of age. This girl had just learned all the duties belonging to her employment, and was regarded in the family as a most useful servant, when some natives, from a spirit of revenge, murdered this inoffensive child in the most barbarous manner, close to the house; her screams were actually heard by the Europeans under whose protection, and in whose service she was living, but they were not in time to save her life. This same native had been guilty of many other barbarous murders, one of which he had committed in the district of the Upper Swan, in the actual presence of Europeans. In June, 1839, he was still at large, unmolested, even occasionally visiting Perth.

Their fondness for the bush and the habits of savage life, is fixed and perpetuated by the immense boundary placed by circumstances between themselves and the whites, which no exertions on their part can overpass, and they consequently relapse into a state of hopeless passive indifference.

I will state a remarkable instance of this:—The officers of the Beagle took away with them a native of the name of Miago, who remained absent with them for several months. I saw him on the North-west coast, on board the Beagle, apparently perfectly civilized; he waited at the gun-room mess, was temperate (never tasting spirits), attentive, cheerful, and remarkably clean in his person. The next time I saw him was at Swan River, where he

had been left on the return of the Beagle. He was then again a savage, almost naked, painted all over, and had been concerned in several murders. Several persons here told me,—"you see the taste for a savage life was strong in him, and he took to the bush again directly." Let us pause for a moment and consider.

Miago, when he was landed, had amongst the white people none who would be truly friends of his,—they would give him scraps from their table, but the very outcasts of the whites would not have treated him as an equal,—they had no sympathy with him,—he could not have married a white woman,—he had no certain means of subsistence open to him,—he never could have been either a husband or a father, if he had lived apart from his own people;—where,'amongst the whites, was he to find one who would have filled for him the place of his black mother, whom he is much attached to?—what white man would have been his brother?—what white woman his sister? He had two courses left open to him,—he could either have renounced all natural ties, and have led a hopeless, joyless life amongst the whites,—ever a servant,—ever an inferior being;—or he could renounce civilization, and return to the friends of his childhood, and to the habits of his youth. He chose the latter course, and I think that I should have done the same.

The information I had collected regarding the Aborigines of Western Australia, encouraged me to address a report to Lord John Russell, the Secre-

tary of State for the Colonies, embracing the general principles which I considered would best promote the civilization of the race. This report having been approved, copies of it were sent to the Governors of the Australian and New Zealand settlements, and with a transcript of it I shall now conclude my work :—*

"*Mauritius, June* 4, 1840.

"My Lord,

"I have the honour to submit to your Lordship a report upon the best means of promoting the civilization of the aboriginal inhabitants of Australia, which report is founded upon a careful study of the language, prejudices, and traditional customs of this people.

"Feeling anxious to render this report as complete as possible, I have delayed transmitting it to your Lordship until the latest possible period; portions of it have in the interim been laid before some of the local governments in Australia, and a few of the suggestions contained in it have been already acted upon.

"But as so small a portion of Australia is as yet occupied, and the important task of so conducting the occupation of new districts as to benefit the aborigines in the greatest possible degree yet remains to be performed, I have thought that it would be agreeable to your Lordship to be put in posses-

* This letter has subsequently been printed for Parliament, at page 43 of the Sessional Paper, No. 311, of 1841, the Colonization of New Zealand.—Ed.

sion of all such facts relating to this interesting subject as are at present known.

"None but general principles, equally applicable to all portions of the continent of Australia, are embodied in this report; and I am particularly solicitous that that portion of it which commences at the 21st paragraph, should receive consideration from your Lordship, as the whole machinery required to bring this plan into operation now exists in the different Australian colonies, and its full development would entail no expense whatever upon either the Home or local Governments.

"I have, &c.

"(Signed) G. Grey,

"Captain 83d Regt.,

"Commanding Australian Expedition.

"Right Hon. Lord John Russell,

"&c. &c. &c."

Report upon the best Means of Promoting the Civilization of the Aboriginal Inhabitants of Australia.

"1. The aborigines of Australia having hitherto resisted all efforts which have been made for their civilization, it would appear that if they are capable of being civilized, it can be shewn that all the systems on which these efforts have been founded, contain some common error, or that each of them involved some erroneous principle; the former sup-

position appears to be the true one, for they all contained one common element, they all started with one recognized principle, the presence of which in the scheme must necessarily have entailed its failure.

"2. This principle was, that although the natives should, as far as European property and European subjects were concerned, be made amenable to British laws, yet so long as they only exercised their own customs upon themselves, and not too immediately in the presence of Europeans, they should be allowed to do so with impunity.

"3. This principle originated in philanthropic motives, and a total ignorance of the peculiar traditional laws of this people, which laws, differing from those of any other known race, have necessarily imparted to the people subject to them a character different from all other races; and hence arises the anomalous state in which they have been found.

"4. They are as apt and intelligent as any other race of men I am acquainted with; they are subject to the same affections, appetites and passions as other men, yet in many points of character they are totally dissimilar to them; and from the peculiar code of laws of this people, it would appear not only impossible that any nation subject to them could ever emerge from a savage state, but even that no race, however highly endowed, however civilized, could in other respects remain long in a

state of civilization, if they were submitted to the operation of such barbarous customs.

"5. The plea generally set up in defence of this principle is, that the natives of this country are a conquered people, and that it is an act of generosity to allow them the full power of exercising their own laws upon themselves; but this plea would appear to be inadmissible; for, in the first place, savage and traditional customs should not be confounded with a regular code of laws; and, secondly, when Great Britain insures to a conquered country the privilege of preserving its own laws, all persons resident in this territory become amenable to the same laws, and proper persons are selected by the Government to watch over their due and equitable administration; nothing of this kind either exists, or can exist, with regard to the customs of the natives of Australia; between these two cases then there is no apparent analogy.

"6. I would submit, therefore, that it is necessary from the moment the aborigines of this country are declared British subjects, they should, as far as possible, be taught that the British laws are to supersede their own, so that any native who is suffering under their own customs may have the power of an appeal to those of Great Britain; or to put this in its true light, that all authorized persons should, in all instances, be required to protect a native from the violence of his fellows, even though they be in the execution of their own laws.

"7. So long as this is not the case, the older na-

tives have at their disposal the means of effectually preventing the civilization of any individuals of their own tribe, and those among them who may be inclined to adapt themselves to the European habits and mode of life, will be deterred from so doing by their fear of the consequences, that the displeasure of others may draw down upon them.

"8. So much importance am I disposed to attach to this point, that I do not hesitate to assert my full conviction, that whilst those tribes which are in communication with Europeans are allowed to execute their barbarous laws and customs upon one another, so long will they remain hopelessly immersed in their present state of barbarism: and however unjust such a proceeding might at first sight appear, I believe that the course pointed out by true humanity would be, to make them from the very commencement amenable to the British laws, both as regards themselves and Europeans; for I hold it to be imagining a contradiction to suppose, that individuals subject to savage and barbarous laws, can rise into a state of civilization, which those laws have a manifest tendency to destroy and overturn.

"9. I have known many instances of natives who have been almost or quite civilized, being compelled by other natives to return to the bush; more particularly girls, who have been betrothed in their infancy, and who, on approaching the years of puberty, have been compelled by their husbands to join them.

"10. It is difficult to ascertain the exact effect the institutions of a country produce upon the character of its inhabitants; but it may be readily admitted, that, if two savage races of equal mental endowments, and with the same capacity for civilization were subject to two distinct sets of laws, the one mild and favourable to the development of civilization, the other blood-thirsty and opposed to it, the former race might gradually be brought to a knowledge of Christianity and civilization, whilst precisely similar efforts made with regard to the latter might be attended with no beneficial result.

"11. Again, it would be unfair to consider the laws of the natives of Australia as any indication of the real character of this people; for many races who were at one period subject to the most barbarous laws, have, since new institutions have been introduced amongst them, taken their rank among the civilized nations of the earth.

"12. To punish the aborigines severely for the violation of laws of which they are ignorant, would be manifestly cruel and unjust; but to punish them in the first instance slightly for the violation of these laws would inflict no great injury on them, whilst by always punishing them when guilty of a crime, without reference to the length of period that had elapsed between its perpetration and their apprehension, at the same time fully explaining to them the measure of punishment that would await them in the event of a second commission of the same fault, would teach them gradually the laws to

which they were henceforth to be amenable, and would shew them that crime was always eventually, although it might be remotely, followed by punishment.

"13. I imagine that this course would be more merciful than that at present adopted; viz. to punish them for the violation of a law they are ignorant of, when this violation affects a European, and yet to allow them to commit this crime as often as they like when it only regards themselves; for this latter course teaches them, not that certain actions, such, for instance, as murder, &c. are generally criminal, but only that they are criminal when exercised towards the white people, and the impression, consequently excited in their minds is, that these acts only excite our detestation when exercised towards ourselves, and that their criminality consists, not in having committed a certain odious action, but in having violated our prejudices.

"14. In the vicinity of towns where there is a certain judicial force, and where on account of the facility of obtaining food the natives always congregate, it would, by a steady and determined line of conduct, be comparatively easy to enforce an observance of the British laws; but even partially to attain this object in the remote and thinly settled districts, it is necessary that each colony should possess an efficient mounted police, a portion of whom should be constantly in movement from district to district, whilst another portion, resident in a central situation, should be ready to act instantly in any

direction where their presence was required. I do not apprehend that this body need be numerous, for their utility would depend more on their activity and efficiency than on their numbers. It is absolutely necessary, for the cause of humanity and good order, that such a force should exist; for so long as distant settlers are left unprotected, and are compelled to take care of and avenge themselves, so long must great barbarities necessarily be committed; and the only way to prevent great crime on the part of the natives, and massacres of these poor creatures as the punishment of such crimes, is to check and punish their excesses in their infancy: it is only after becoming emboldened by frequent petty successes, that they have hitherto committed those crimes which have drawn down so fearful a vengeance upon them.

"15. The greatest obstacle that presents itself in considering the application of the British laws to these aborigines is the fact, that from their ignorance of the nature of an oath, or of the obligations it imposes, they are not competent to give evidence before a court of justice; and hence, in many cases, it would be extremely difficult, if not impossible, to obtain evidence on which a prisoner could be convicted.

"16. One mode of evading this difficulty would be, to empower the court to receive evidence from the natives in all cases relating solely to themselves without the witness being sworn, only allowing testimony of this nature to hold good when borne out

by very strong circumstantial evidence; 2dly. To empower the court always to receive evidence from natives called on by a native prisoner in his defence, such evidence being subject to the before-named restrictions.

"17. The fact of the natives being unable to give testimony in a court of justice is a great hardship on them, and they consider it as such; the reason that occasions their disability for the performance of this function is at present quite beyond their comprehension, and it is impossible to explain it to them. I have been a personal witness to a case in which a native was most undeservedly punished, from the circumstance of the natives, who were the only persons who could speak as to certain exculpatory facts, not being permitted to give their evidence.

"18. There are certain forms in our colonial courts of justice, as at present conducted, which it is impossible to make a savage comprehend. I attended one quarter sessions, at which a number of natives were tried on a great variety of charges. Several of them were induced to plead guilty, and on this admission of their having committed the crime, sentence was pronounced upon them. But when others denied their guilt, and found that this denial produced no corresponding result in their favour, whilst at the same time they were not permitted to bring forward other natives to deny it also, and to explain the matter for them, they became perfectly confounded. I was subsequently

applied to by several intelligent natives to explain this mystery to them, but I failed in giving such an explanation as would satisfy them.

" 19. The natives being ignorant of our laws, of the forms of our courts of justice, of the language in which the proceedings are conducted, and the sentence pronounced upon them, it would appear that but a very imperfect protection is afforded them by having present in the court merely an interpreter, (very often an ignorant man,) who knows nothing of legal proceedings, and can be but very imperfectly acquainted with the native language: it must also be borne in mind, that the natives are not tried by a jury of their peers, but by a jury having interests directly opposed to their own, and who can scarcely avoid being in some degree prejudiced against native offenders. From these considerations, I would suggest that it should be made binding upon the local government, in all instances, (or at least in such instances as affect life,) to provide a counsel to defend native prisoners.

" 20. Some other principal preventives to the civilization of the aborigines, in addition to those I have already stated, are,

" 1stly. The existence of an uncertain and irregular demand for their labour: thus they may have one day sufficient opportunity afforded them for the exertion of their industry, whilst the next day their services are not required, so that they are compelled once more to have recourse to their former irregular and wandering habits.

"2dly. Their generally receiving a very inadequate reward for the services they render; this, combined with their natural fondness for the bush, induces them to prefer that mode of subsistence which, whilst it is infinitely more agreeable, and less laborious, procures for them nearly as great a reward as living with white people.

"3dly. Their not being taught that different values are attached to different degrees of labour, as well as to the skill and neatness with which it is performed.

"21. These impediments might all either be removed or modified in some districts by the establishment of native institutions and schools, but in forming a general plan for their removal which would be equally applicable to all parts of a colony, a very novel difficulty presents itself.

"22. Imagining that a native child is perfectly capable of being civilised, let it also be granted, that from proper preventive measures having been adopted, this child has nothing to fear from the vengeance of the other natives, so that it stands in these respects nearly or altogether in the position of a European.

"23. If this native child is a boy, who is to pay the individual who undertakes to teach him some calling, the fee usually given with an apprentice; who will indemnify this person for the time he spends in instructing the boy before he can derive any benefit from his labour, or for the risk he in-

curs of the boy's services being bestowed elsewhere as soon as they are worth having?

" 24. Until this difficulty is got over, it appears evident that the natives will only be employed in herding cattle, or in the lowest order of manual labour, which requires no skill, and for which the reward they receive will be so small, as scarcely to offer an inducement to them to quit their present wandering mode of life.

" 25. The remedy I would suggest for this evil would have another advantage besides a tendency to ameliorate it, for it would give the settlers a great and direct interest in the aborigines, without entailing any expense upon the Government. It is founded on the following fact.

" 26. The Government, in order to create a supply of labour in the colonies, have been in the habit of giving certain rewards to those individuals who introduced labourers into them. Now, it would appear that he who reclaims one of the aborigines not only adds another labourer to those who are already in the colony, but further confers such a benefit on his fellow-settlers, by rendering one who was before a useless and dangerous being, a serviceable member of the community, that this circumstance alone entitles him to a reward.

" 27. I would therefore propose, that on the production of the hereafter-named documents, a settler should receive a certificate entitling him to a certain sum, which should either be allowed to reckon towards the completion of location duties, or

else as a remission certificate in the purchase of land, or, in lieu of this, a grant of land; and that this sum or grant should be regulated according to a table specifying the various circumstances that are likely to occur, and drawn up by the local government of each place where such regulation should be introduced.

"28. The documents to which I allude are these:

"1stly. A deposition before the nearest magistrate to such settler's house, that a native or natives have been resident with him constantly for the last six months, and have been employed in stated species of labour.

"2dly. A certificate from the government resident of the district that, to the best of his belief, such statement is true, for that on his visiting this settler's house, the stated number of natives were there, and were respectively occupied in the kinds of labour described.

"3dly. A certificate from the protector of aborigines that he has visited this settler's house; that the stated number of natives were resident there, and appeared to be progressing in the knowledge of that branch of industry in which they were respectively stated to be employed.

"29. It would be further necessary that any settler who intended to endeavour to reclaim natives, should give a short notice to the protector of aborigines, previously to the commencement of the first six months.

" 30. Could this plan be brought into operation, the work of the civilization of the aborigines would at once be commenced upon a great scale; it would not be confined to a single institution, but a variety of individuals, endowed with different talents and capacities for this work, would at once be employed on it: it is, indeed, rather suited, and intended for the outskirts of civilization, thinly populated by settlers, than for towns, yet it is applicable to both situations; whilst its direct operation would be to induce the settler adequately to remunerate the native for, as well as to provide him with, a constant supply of labour, and to use every exertion by kind and proper treatment, to attach him for as long a period as possible to his establishment.

" 31. In considering the kinds of labour in which it would be most advisable to engage natives, it should be borne in mind, that in remote districts where the European population is small, it would be imprudent to induce many natives to congregate at any one point, and the kinds of labour in which they should be there engaged ought to be of such a nature as to have a tendency to scatter them over the country, and to distribute them amongst the separate establishments.

" 32. Whilst in the well-peopled districts, where a force sufficient both to protect and control the aborigines exists, they should be induced to assemble in great numbers, for they work much more readily when employed in masses, and by thus assembling them on one point, their numbers are

diminished in those portions of the colony which have a small European population, and they are concentrated at a spot where proper means for their improvement can be provided.

"33. The first of these principles has been strictly attended to in the plan proposed in the 27th and following paragraphs of this report; the second has been carried into successful operation in Western Australia.

"34. In order that the work on which the natives are employed in the vicinity of towns should be of the most advantageous nature, it is necessary that it should be productive of benefit both to themselves and the Government which employs them, so that it cannot be complained of as a useless expense, whilst at the same time it should be of such a kind as to accord with that love of excitement and change which is so peculiar to this people.

"35. Both of these ends would be attained by employing the aborigines either in opening new roads or in repairing old lines of communication; indeed this mode of employment is singularly suited to the habits of this people; they might be kept constantly moving from post to post, thus varying the scene of their operations; one portion of the party might be employed in hunting with kangaroo dogs, or fishing, in order to supply the others with fresh meat; and the species of labour in which the main body were engaged, might, if they wished it, be changed once or twice in the

course of the day, to prevent their being wearied by the monotonous character of their employment.

"36. Among other enactments which I believe would have a tendency to promote the civilization of the aborigines, and which are applicable to those districts in which for some time a great intercourse has existed between the natives and Europeans are the following:—

"37. 'That any native who could produce a certificate (from the protector of aborigines) of having been constantly employed at the house of any settler or settlers, for a period of not less than three years, should be entitled to a grant of land, the extent of which should be fixed by the local government of the colony to which such native should belong, and that, if possible, this grant should be given in that district to which this native by birth belonged.

"'That, in addition to this grant, he should receive a sum of money, the amount of which should also be fixed by the local government, and which should be drawn from the fund raised by the sale of Government lands, and which sum should be expended in goats, poultry, &c., so as to enable the native in some manner to stock his land.

"'That any native, having only one wife, who produced a certificate of the civil marriage contract having been performed between himself and her, by the resident of the district to which he belonged, should be entitled to a small reward.

"'That any natives who registered duly the birth

of any of their children should be entitled to a small reward.

"'That some competent person should be paid to instruct two native boys in such a manner as to qualify them to act as interpreters in courts of law, and that as soon as they are found competent, they should be employed for this purpose.'

"I believe that many other regulations, similar to these, would be found to produce a very beneficial effect."

APPENDIX.

APPENDIX.

(A.)

GENEALOGICAL LIST

TO SHEW THE MANNER IN WHICH A NATIVE FAMILY BECOMES DIVIDED.

Nar-doo-itch or Mo-rel-li } a Ballar-oke, born about A.D. 1735,

had two wives,

Kan-dow-ree, a Ngotak,

and

Bol-ye-ree, a No-go-nyuk.

Kan-dow-ree, had the following children—

Yin-dee-ree,	female	These were all Ngotaks.
Wun-ya-ree,	do.	
Kag-a-ree,	do.	
Yung-al,	male	
Wal-luk-wur,	do.	

Three of these children, Yin-dee-ree, Wun-ya-ree, and Kag-a-ree, were by Nar-doo-itch's brother, her former husband.

Bol-ye-ree's children were—

Kow-en-ung,	female,	These were all No-go-nyuks.
No-gong-o,	male	
Jee-bar,	do.	
Koon-a-ber-ra,	do.	
Ko-teyne,	do.	
By-er-man,	do.	

Kim be-yen-ung, a Tdon-dar-up, married, amongst other wives, Noo-yar, a Ballar-oke.

Noo-yar's children were—

Yow-at-ung,	female*	These were all Ballar-okes.
Kad-jen-ung,	do.	
Ban-in-yung,	do.	
Now-ween-gool,	do.	

In order to shew the way in which the different families marry into one another, I will now trace up the descendants of some of the male children of Na.-doo-itch, by each of his wives.

Yung-al, the son of Nar-doo-itch,
called also
Be-ra-gore,
married
Ming-an, a Ballar-oke,
Ko-pan, a Nagar-nook,
Yow-at-ung, a Ballar-oke, daughter of Kim-be-yen-ung.

Ming-an's children were—

Book-oop,	female	These were all Ballar-okes.
Yu-yat,	male	
Me-kat,	female	
Tdan-up,	do.	

Ko-pan's children were—

E-lar,	male	These were all Na-gar-nooks.
Wat-up,	do.	
Bil-yan,	do.	
Mong-a-na,	female	
Wun-daile,	do.	

* Married to Yungal, a son of Nar-doo-itch.

Yow-at-ung's children were—

Im-bat,	male	These were all Ballar-okes.
Jil-gar,	do.	
Gā-māt,	do.	
Dubin,	female	
Boo-yin	do.	

Jee-bar, a No-go-nyuk, another son of Nar-doo-itch,

married { Kag-a-ree, a Ngotak,
Bar-ri-kan, a Tdondarup.

Kag-a-ree's children were—

Mun-gal-wurt,	male	Ngotaks.
°Ell-yar,	do.	
Wun-jan-ing,	female	
War-ran-yung,	do.	
Bee-wul-lo,	male	

Bar-ri-kan's children were—

Djar-a-bung,	female	Tdondarups.
Nag-a-bung,	do.	
Yu-gat,	male	
Ka-ral-ung	do.	

Bee-wul-lo, a Ngotak, the son of Jee-bar, married,

Wun-daile,	a Na-gar-nook,
Noon-dup,	a No-go-nyuk,
Du-bin,	a Ballar-oke,
Ek-kan,	a Ballar-oke,
Ming-up,	a Ballar-oke,
We-jee-bung,	a Ballar-oke.

Wun-daile's children were—

Yen-na,	male	Na-gar-nooks.
War-rup,	do.	
Tu-yin,	do.	
Dow-eer,	do.	
Wil-gup,	female	
Ka-bin-yung,	do.	
Bate-up,	female	

Noon-dup's children were

Mee-nung,	male	No-go-nyuks.
Kow-elwurt,	do.	
Ngar-ra-jil,	do.	
Kau-mar,	do.	
Koot-in,	do.	
Il-gat,	do.	

Du-bin had but one child—

Waj-jup, female, a Ballar-oke.

Ek-kan's children are—

Wy-up,	male	Ballär-okes.
Kok-o-bung,	female	
Wee-muk,	do.	

Ming-up has but one child living—

Win-bill, male, a Ballar-oke.

(B.)

MOUNT FAIRFAX, THE WIZARD HILLS, AND CHAMPION BAY.

(*From the Nautical Magazine for July*, 1841, *page* 443.)

The only part of the West coast (to the northward of Swan River) that has been visited by the Beagle is that part immediately to the eastward of the Abrolhos, and it is remarkable from being under the high table land of Moresby's flat-topped range, which is a considerable elevation, and in clear weather is visible from a ship's mast-head at the Abrolhos.

This range of hills extends N.N.W. six miles from Mount Fairfax, which, although a detached hill, may be considered its southern extreme. Mount Fairfax is a table-topped hill, the summit of which is an elevated part at its

southern edge, and is 590 feet high. It is in latitude 28° 45¼′, and longitude 1° 3¾′ west of Swan River, and 4 miles from the coast. To the S. E. of Moresby's flat-topped range are the Wizard Hills, the highest of which, Wizard Peak, is 640 feet. It is in lat. 28°. 49.′ 37″ s. and long. 0. 58½′ w. of Swan River. For 10½ miles to the northward of Moresby's flat-topped range are some remarkable detached ranges of table land, from 500 to 600 feet high, at the northern extreme of which are the Menai Hills. Some of them show as peaks, but appear only to be the gable ends, as it were, of table-topped ridges.

In lat. 28°. 47′ s. there is a narrow neck of low land projecting about 1¾ mile from the coast line, to the northward of which there is good anchorage in Champion Bay.

Point Moore, which is the extreme of this low projection, bears w. 13° s. (mag.) from Mount Fairfax, and w. 17° N. (mag.) from Wizard Peak. The anchorage is protected from the westward by a reef that extends upwards of a mile to the northward from Point Moore: but half a mile to the northward of the reef is a detached shoal patch which breaks occasionally, between which and the reef there is a passage through which the Beagle passed, and had not less than six fathoms. But perhaps it would be advisable in standing into the bay to pass to the northward of this danger, which may be done by not bringing Mount Fairfax to bear to the southward of E. ¼ S. (mag.) until Point Moore bears south.

This bay is open to the northward, but as the winds from that quarter are not frequent, and then only in the winter season, it may be considered as affording shelter from the prevailing winds on the coast. The water is shoal in the head of the bay, but a good anchorage may be taken three-quarters of a mile off shore, in four fathoms sandy bottom, with Point Moore bearing S. 50° W. and a remarkable bare brown

sand-hill in the S. E. part of the bay, bearing S. 31° E. Mount Fairfax will then bear N. 87′ E. and the north extreme of the reef from Point Moore N. 50′ W. Wizard Peak is not seen from this anchorage.

South of Point Moore is another bay formed by a continuation of the same reef that shelters Champion Bay from the westward; but it is quite exposed to the prevailing winds. From Champion Bay the coast tot he northward is sandy, and fronted by sand-hills slightly covered with shrubs. This description of coast continues for nearly twenty miles. In lat. 28° 25′ is a remarkable white sand patch 274 feet above the sea, between two and three miles south of which is a deep ravine where there is probably a stream of fresh water. Here the shore becomes steeper, and rises abruptly from the sea, forming downs about 300 feet high. Native fires were seen in this neighbourhood, and the country had a more fertile appearance, than in the vicinity of Champion bay. This part of the coast is bold too, and is free from outlaying dangers, the depth of water from two to three miles off shore, being taken between 16 and 29 fathoms. High water at Champion Bay takes place on change days at 9 h. 30 m. P. M. nearly, and the range is from 12 to 24 inches. The stream of tide is not perceptible, but there is generally a current along the coast to the N. N. W. from half a mile to one mile an hour.

Champion Bay appears to be the only anchorage on the coast between Swan River and Sharks Bay: it is preferable to Gage's Road, and may at no very distant period become of importance to Western Australia, in consequence of a considerable tract of fine country having lately been discovered immediately to the eastward of Moresby's flat-topped range.

(C.)

Contributions towards the Geographical distribution of the Mammalia of Australia, with notes on some recently discovered species, by J. E. GRAY, F.R.S., *&c. &c, in a letter addressed to the Author.*

British Museum, 10th July, 1841.

MY DEAR SIR,

The very little attention which has hitherto been paid to the distribution of the animals of Australia, and the very incorrect manner in which the habitats of the different species are given in collections and systematic works, have induced me to send you, with the description of the new species recently brought from that country, a table, shewing, at one view, the distribution of the different species which have hitherto been recorded as found in Australia, as far as the materials at my disposal will allow me.

I am the more induced to do so, as I believe I have now under my care the richest collection of the animals of this country in any Museum; as, besides the specimens which we have been collecting from different quarters, with the kind assistance of Mr. Ronald Gunn, Mr. Harvey, and yourself, we have just purchased a complete series of all the species and varieties brought by Mr. Gould from different parts of this Continent; and these specimens were all marked with the habitat immediately after they were procured.

The first column in the following table indicates the species found in *New South Wales*, and the east part of the Con-

tinent; the number in the column specifying the particular habitats where the species has been observed,

1. Sydney, and its neighbourhood.
2. The Rivers Hunter and Maitland, and Goulburn Plains.
3. Liverpool Plains.
4. Liverpool Range.
5. The Namoi and Mokai Rivers.
6. Bong-Bong.
7. Yarrundi.
8. Interior (generally).
9. Australian Alps.
10. Murrumbidgee River.
11. Moreton Bay.
12. Clarence River.
13. Port Phillip.
14. Bathurst.
15. Interior of Australia Felix.
16. Murray River.
17. Bayunga River.
18. Darling River.
19. Glenelg River.
20. Port Stevens Mountains.
21. Port Macquarrie.

The second column refers to *South Australia*, and the numbers in it to

1. Adelaide and its vicinity.
2. Kangaroo Island.
3. The South Coast.
4. Port Lincoln.
5. Murray River.

The third column refers to *Western Australia*, as,

1. Perth.
2. King George's Sound.
3. Northam.
4. Canning River.
5. Rottness and Garden Islands.

The fourth column refers to the *North-west Coast of Australia*.

1. Hanover Bay.
2. Islands in Shark's Bay.
3. Dirk Hatterick's Bay.
4. Generally, the peculiar locality not being marked.

The fifth column to the *North Coast*.

1. Port Essington.

The sixth column to the Island of *Van Diemen's Land*, the numbers to

1. Hobart Town.
2. Circular Head.
3. Bass's Straits and King's Island.
4. New Norfolk.
5. Kangaroo Point.
6. Tasman's Peninsula.
7. Launceston.
8. Acteon Island.
9. Mount Wellington.

The seventh column to *Norfolk Island*, marked No. 1.

	1	2	3	4	5	6	7
PRIMATES—Fam. *Vespertilionidæ.*							
1. Rhinolophus megaphyllus *Gray.*	10						
2. Nyctophilus Geoffroyii *Leach?* Barbastellus pacificus *Gray.* Nyctinomus ——? *Bennett.*	1, 7		1			1	
Var. major. . . .			1				
Scotophilus.							
* *Wings and interfemoral membranes with lines of hairs.*							
3. Scotophilus morio, *n. s.*							
4. S. Gouldii, *n. s.* . .	2					7	
5. S. australis, *n. s.* . .	1, 4	1	4			1	
** *Wings nearly bald.*							
6. S. pumilus, *n. s.* . .	7						
7. Molossus australis. . .					1		
8. Pteropus poliocephalus *Temm.* Pt. Edwardsii *G. Bennett* not *Desm.*	11, 12						
FERÆ.—Fam. *Felidæ.*							
9. Canis familiaris Australasiæ. . Canis Dingo *Blumenb.* Fam. *Phocidæ.*	1	1?					
10. Otaria Peronii. . . Fam. *Didelphidæ.*	1?						
11. Thylacinus cynocephalus *Fischer.* Didelphis cynocephalus *Harris.*						2	
12. Diabolus ursinus. . . Didelphis ursina *Harris.* Sarcophilus ursinus *F. Cuv.*						1, 2	
Dasyurus.							
* *Thumb small, clawless.*							
13. D. maculatus. . . Viverra maculata *Shaw.* Dasyurus macrurus *Geoff.*						1, 2	
14. D. Geoffroyii *Gould.* . .	3						
** *Thumb none.*							
15. Dasyurus viverrinus *Geoff.* . Didelphis viverrina *Shaw.* . Var. Das. Maugei *Geoff.*	1, 2, 3 6					1, 2	
Phascogale Temm.							
* *Tail end tufted.*							
16. Ph. penicillata *Temm.* . . Didelphis penicillata *Shaw* Dasyurus tafa *Geoff.*	2, 11 3	1					

	1	2	3	4	5	6	7
** *Tail conical, end pencilled.*							
18. Ph. minima *Temm.* . . Dasyurus minimus *Geoff.* Ph. Swainsonii *Waterh.*						3	
19. Ph. affinis, *n. s.* . .						6	
19. Ph. rufogaster, *n. s.* . .		1					
20. Ph. flavipes *Waterh.* . .	2, 3						
21. Ph. murina *Waterh.* . .	2		4				
22. Ph. leucogaster, *n. s.* . .			1				
23. Myrmecobius fasciatus *Waterh.*			1				
24. ———— ? rufus *Mitchell* Red shrew mouse *G. Bennett.* .	8?						
Perameles.							
a Tail tapering. * *Rump banded.*							
25. Per. Gunnii *Gray.* . . .						1	
26. Per. fasciata *n. s.* . .	3	1					
** *Hair grizzled, ears acute, long.*							
27. Per. nasuta *Geoff.* . . . P. aurita *Mus Par.* P. Bougainvillii *Quoy.*	1						
*** *Hair grizzled, ears rounded.*			2				
28. Per. fusciventer, *n. s.* . .							
29. Per. obesula *Geoff.* . . . Didelphis obesula *Shaw.*	1?		1			4, 5	
b. Hair soft, tail end tufted, ears very long, Paragalia.							
30. Per. lagotis *Reid.* . .			3				
31. Chœropus ecaudatus *Ogilby.* . Perameles ecaudatus *Ogilby.*	16						
32. Phalangista vulpina *Desm.* . Didelphis vulpina *Shaw.* . Didelphis lemurina *Shaw.* Didelphis peregrina *Bodd.*	7, 4 5, 10 11	2	2, 3		1	1	
Var. 1.			1				
Var. 2.	5						
33. Phal. fuliginosa *Ogilby.* . Var. grisea.						2	
34. Phal. xanthopus *Ogilby.* .	19						
35. Phal. canina *Ogilby.* . .	2						
36. Phal. Cuvieri *Gray.* . . Ph. Cookii *Cuvier.* Petaurus Cookii *F. Cuv.*	8?						
37. Dromicia nana. . . Phalangista nana *Geoff.* Phal. gliriformis *Bell.*						1	

	1	2	3	4	5	6	7
38. Hepoona Cookii. . . .	1,3,4		1,2			1	
Phalangista Cookii *Gray.*	7						
Phalangista Banksii *Gray.*							
Balantia Cookii *Kuhl.*							
Phalangista viverrina *Ogilby.*							
39. Petaurista Taguanoides *Desm.* .	1, 21						
40. Petaurista leucogaster .	16						
Petaurus leucogaster *Mitchell*							
41. Petaurus macrurus *Geoff.* .	8, 14						
Didelphis macrura *Shaw.*							
42. Petaurus flaviventer *Desm.* .	3						
43. Petaurus breviceps. .	8						
Belideus breviceps *Waterh.*							
44. Petaurus sciureus *Desm.* .	1, 2						1
Didelphis sciurea *Shaw.*	3, 13						
45. Petaurus Peronii *Desm.* ?	2						
46. Acrobates pygmæus *Desm.* .	8						
Didelphis pygmæa *Shaw.*							
Macropus.							
* *Tail end simple; fur one-coloured.*							
47. Mac. major *Shaw.* . .	1, 4	1				1, 9	
Macropus giganteus *Shaw.*	8, 15						
Halmaturus labiatus *Geoff.*							
Halmaturus rufogriseus *Lesson?*							
Var. Macropus albus *Gray.*							
48. Mac. laniger *Lesson.* . .	5, 10	15					
Kangurus rufus *Lesson.*	21,19						
49. Mac. fuliginosus *Lesson.* .	*	2					
** *Tail end simple, back coloured.*							
50. Mac. lunatus *Gould.* . .			1				
*** *Tail end clawed. (Onychogalea.)*							
51. Mac. frenatus *Gould.* . .	3, 8						
52. Mac. unguifer *Gould.* . .				1			
Halmaturus.							
* *Tail long, end slightly tufted.*							
53. Hal. Parryii *Gray.* . .	20						
Macropus Parryii *Bennett.*	3						
Var. pallida *Gray.*							
54. Hal. manicatus *Gould.* . .			1				
Hal. Irma *Jourdan.*							
** *Tail simple, back one-coloured.*							
55. Hal. Bennettii *Waterh.* .				1			
Hal. Ualabatus *Gray.*				2, 3,			
Halm. fruticus *Ogilby.*				5, 7			
56. Hal. Ualabatus *Lesson.* .	2						
Halm. Lessonii *Gray.*							
"							

	1	2	3	4	5	6	7
57. Hal. elegans. . . .	6, 15						
Mac. elegans *Lambert.*							
Hal. ruficollis *Lesson, Gould.*							
58. Hal. Billardieri *Lesson.* .						1, 2,	
Hal. Tasmanii *Gray.*						3, 7	
Hal. rufiventer *Ogilby.*							
59. Hal. Eugenii *Gray.* . .	1, 2	1 ?					
Hal. Thetis *Lesson.*							
Kangurus Eugenii *Desm.*							
60. Hal. brachyurus *Quoy.*			2				
Hal. Thylogale brevicaudatus *Gray*							
**** Tail simple, back streaked.*							
61. Hal. dorsalis *Gray.* . .	8, 5,						
	17, 3						
62. Hal. Parma *Gould.* . .	1.						
63. Hal. Derbianus *Gray.* . .		2					
Var. obscurior. . . .			5				
64. Hal. ? Banksianus *Lesson.* .	1. ?						
65. Hal. fasciatus *Goldf.* . .				2			
Kangurus fasciatus *Lesson.*							
Petrogale.							
* *Tail conical, slightly tufted.*							
66. P. robusta *Gould.* . .	4, 8						
*** Tail end tufted.*							
67. P. brachyotis *Gould.* . .				1			
68. P. penicillata *Gray.* . .	3, 21						
Heteropus albogularis *Jourdan.*							
69. P. lateralis *Gould.* . .			1				
70. Hypsiprymnus minor *Cuv.* .	1					1	
Macropus minor *Shaw.*							
Hyps. myosurus *Ogilby.*							
71. Hyps.? Lesueurii *Quoy.* .				3			
72. Hyps. Gilbertii *Gould.* . .			2				
73. Lagorchestes leporoides *Gould.* .	3, 5						
Bettongia *Gray*				•			
* *Tail end blackish.*							
74. Bett. setosa *Gray.* . .	3, 5						
Hypsiprymnus setosus *Ogilby.*							
Hyp. murinus *Ogilby.*							
Var. Bett. penicillata *Gray.*							
75. Bett. Ogilbii *Gould* . .			1				
*** Tail end brown, white tipped.*							
76. Bett. Whitei *Gould* . .	1						
Hypsiprymnus Whitei *Quoy.*	•						
H. formosus *Ogilby.*		•			•		
Hyp. Phillipii *Ogilby.*							
77. Bett. Grayii. . . .		4					
Hyp. Graii *Gould.*							

	1	2	3	4	5	6	7
*** *Tail grey, ears black.*							
78. B. rufescens *Gray.* . .	1						
Bett. melanotis *Ogilby.*							
79. Phascolarctos fuscus. *Desm.* .	1, 8						
Ph. cinereus *Fischer.*							
Lipurus cinereus *Goldf.*							
80. Phascolomys ursinus . .	8	1				1, 2	
Didelphis ursina *Shaw.*	15					3	
Wombatus fossor *Geoff.*							
Phasc. fuscus *Desm.*							
Amblotis fossor *Illiger.*							
Order GLIRES. Fam. *Muridæ.*							
81. Hydromys chrysogaster *Geoff.* .	3, 11		1			1,2,8	
Hyd. leucogaster *Geoff.*							
82. Pseudomys australis *Gray.** .	3						
83. Mus setifer *Horsf.* . .				1		1	
84. Mus lutreola. *n. s.* . .	2	1				5, 3	
85. Mus. Greyii *n. s.* . .		1					
86. Mus. Adelaidensis *n. s.* . .		1					
87. Mus. ? platurus *Mitchell* .	18						
88. Mus. ? Hovellii *Mitchell* .	17						
89. Hapalotis albipes *Licht.* .	3, 9 ?						
Conilurus destructor *Ogilby.*	18						
90. Hapalotis Mitchellii . .	16						
Dipus Mitchellii *Ogilby.*							
91. Hapalotis Gouldii *n. s.* .			1				
Order UNGULATA.—Fam. *Dasypidæ.*							
92. Echidna aculeata. . . .	4, 8						
Myrmecophaga aculeata *Shaw.*							
Tachyglossus aculeatus *Illiger.*							
Echidna hystrix *Cuv.*							
93. Echidna setosa.						1, 2	
Ornithorhynchus Hystryx. var. *Home.*							
Tachyglossus setosus *Illiger.*							
94. Platypus anatinus *Shaw.*	1					1	
Ornithorhynchus paradoxus *Blum.*							
Orn. rufus. & O. fuscus *Leach.*							
O. crispus & elvis *Macgillivray.*							
O. brevirostris *Ogilby.*							
Order CETÆ.							
95. Delphinorhynchus Pernettensis					1		
96. Balæna Physalis .				1			
Total of species found in each country	60	18	20	6	3	22	1
Total of species peculiar to each country	45	6	12	6	2	11	0

Of these species there are—

Non-Marsupial,		
Primates . .	8	
Feræ . . .	2	
Cetæ . . .	2	
Glires . . .	11	
		23
Marsupial (Didelphidæ) .		71
Monotrematous . .		3
		97

This list shews the progress which has taken place in the knowledge of the Australian animals; for only a few years ago, it was generally stated, that the Australian dog was the only non-Marsupial animal found on the continent.

The following species appear to be new to science.

No. 1.—*Rhinolophus megaphyllus*, Gray Proc. Zool. Soc. 1834. 52. Brown, end of the hairs of the back with small, and on the lower side of the body with longer, grey tips. Ears with two hairy lines on each side. Wings with little tufts of short hairs near the side of the body beneath. (Nose leaf destroyed.) Body, 2 inches 3-12; fore-arm, 1 11-12; tail 11-12; fore-legs, 9-12; ears, 7-12.

No. 2. *Scotophilus morio*, Gray.—Back uniform, brownish black, scarcely paler beneath; cheeks nearly black; underside of wings, and interfemoral membrane with lines of hairs; heel bone elongated, slender; ears moderate rounded; tragus oblong blunt; fore-arm bone, 1 10-12; shin bone, 9-12 of an inch.

No. 4. *Scotophilus Gouldii*, Gray.—Blackish, hinder half of the back brownish; sides and abdomen brownish ash; ears rather large, broad; tragus half ovate; under side of the wings and interfemoral membrane with lines of hairs.

Var. 1. Hinder part of the back greyish; sides of the abdomen grey. Inhab. Australasia, Mr. Gould.

No. 5. *Scotophilus australis*, Gray.—Back blackish; tips of the hairs rather browner; beneath rather paler on the sides of the abdomen; ears small; tragus oval lanceolate, rather crescent-shaped; wings, with sixteen or eighteen oblique cross lines of hairs under each fore-arm, and scattered hairs on the sides of the body; fore-arm bone, 1 5-12; shin bone, 15-24. Var. rather larger; fore-arm bone, 1 7-12; shin bone, 17-24.

No. 6. *Scotophilus pumilus*, Gray. Grey brown, base of the fur blackish, beneath paler; cheeks blackish; ears small, rather thin, longer than the fur; tragus elongate, half as long as the ears, rounded at the end; wings nearly bald, except near the arm-pit; interfemoral membrane hairy at the base; heel-bone elongate, two-thirds the length of the margin of the interfemoral membrane. Head and body, 1 2-12; tail 11-12; fore-arm bone, 1 2-12.

This species, Mr. Gould notes, flies quick and low over water.

No. 7. *Molossus australis*—See Gray, Mag. Zool. and Bot. vol. ii. 501.

No. 15. *Dasyurus viverrinus*.—Mr. Gould has observed that the black and yellowish varieties are sometimes found together in the same litter. There is an intermediate variety, blackish, with olive tips to the hairs.—Dr. Shaw's specific name should be retained.

No. 18. *Phascogale affinis*, Gray.—Above brown, grizelled with yellowish-brown tips to the hairs; beneath grey brown; under fur lead colour; tail short. Male darker; length of body and head $6\frac{1}{2}$; tail $4\frac{1}{2}$. Female, length of the body and head $4\frac{1}{2}$; tail $2\frac{3}{4}$ inches. Inhab. Tasman's Peninsula, Mr. Gould.

This may be the same as *P. minima* of Geoffroy, but the tail is longer for its size.

No. 19. *Phascogale rufogaster*, Gray.—Head grey; back and sides brown, with longer black hairs; sides of the belly and feet bright rufous; lips and chin whitish; under fur lead colour; tail end blackish-brown, slightly pencilled. Body and head, 4; tail, 2 inches. Inhab. South Australia, Mr. Gould.

No. 22. *Phascogale leucogaster*, Gray.—Head and shoulders grey, behind rather browner, with scattered longer black-tipped hairs; chin and beneath pure white; feet brownish grey. Body and head, 4; tail, 2½ inches.

Inhab. Western Australia, banks of the Canning river, April 1839, Mr. Gould.

More specimens and further observations may prove these to be only local varieties of one species; but the specimens we have from the same localities are similar in character, which is not the case with the different specimens of *Hepoona*.

No. 26. *Perameles fasciata*, Gray.—Grey brown, rump with three black bands; tail white, with a black streak along the upper side. Inhab. Liverpool Plains and South Australia; smaller than *P. Gunnii*.

No. 28. *Perameles fusciventer*, Gray.—Brown, yellow grizelled; tail above blackish, beneath grey; head short, conical; belly grey brown, with broad rufous channelled hairs. This species is like *P. obesula* in colour, but the head is shorter, and the belly of that species is white, with white bristles.

No. 37. *Dromicia nana*.—The dentition and the peculiar form and character of the tail of this species, at once point out that it should constitute a distinct genus from the other Phalangers, from which it differs in many of its habits.

No. 38. *Hepoona Cookii*.—Specimens from the same locality differ from one another in the extent of the white on the tail, in the darkness of the colour of the fur, and

in the limbs and sides of the body being of the colour of the back, or more or less rufous. There are either five or six species, or only one.

No. 39. I have retained the name of *Petaurista* for the flying Phalangers with hairy ears, as Dr. Shaw's *Didelphis Petaurus* is evidently the same as *P. flaviventer*, and has naked ears, like the other species, and his name *Petaurus* should be used rather than Mr. Waterhouse's *Belideus* for this genus.

No. 40. *Petaurista leucogaster*, may only be a variety of *P. Taguanoides.*

No. 42. *Petaurus macrourus.*—This species is only known from the figures of Dr. Shaw. They have a specimen of a young *Petaurista Taguanoides*, under this name, in the Paris Museum.

No. 43. *Petaurus breviceps.* This is probably the species called *P. Peronii* in Mr. G. Bennett's catalogue of the Australian Museum. It may also be M. Desmarest's; if this is so, the latter name will nave to be adopted, and the one first used erased from the list.

No. 47. The *Macropi* with hairy muffles, are found in grassy places, while the *Halmaturi* are confined to the scrubs; and the *Petrogalæ*, or Rock Kangaroos, to the rocky districts; the latter, like *Bettongia*, sit with their tail between the legs. Mr. Gould informs me the animals of the latter genus also use their tails for the purpose of carrying the grass to their nests. The tree Kangaroos of New Guinea have a tail somewhat like a squirrel. These differences of habit shew the propriety of dividing this group of animals into genera.

No. 48. *Macropus laniger.*—This name must be rejected, as the animal is not wool-bearing. The skin in the Paris Museum is made up with the skin of a sheep. M. Desmarest's description of the female *M. rufogriseus* in the

New Dictionary, very nearly agrees with this species, but Mr. Gould is inclined to consider the specimen he was shewn for that species in the Paris Museum was *M. major*.

No. 57. *Halmaturus elegans*.—The description of Mr. Lambert is so short, that it has hitherto been considered impossible to determine it with accuracy; but on comparing the coloured plate which is bound up with Sir Joseph Banks's copy of the volume of the Transactions containing the paper, now in the Museum Library, with the specimens of kangaroos in the Museum collection, I have very little doubt of its being intended for one which Mr. Gould considers as identical with *M. ruficollis* of M. Desmarest. M. Desmarest's animal is said to come from King's Island, in Bass's Straits, while Mr. Gould's animal, like the one Mr. Lambert described, is from New South Wales. Mr. Gunn remarks, that *H. Billardieri* is common in the locality indicated by M. Desmarest.

No. 67. *Petrogale brachyotis*. — This species was discovered by Capt. G. Grey, in his expedition, and the specimens he collected he gave to Mr. Gould, who described them, and is now about to figure them in his forthcoming monograph of the species of kangaroos: a work which will be as far superior to any other published on Mammalia in beauty of design and accuracy in the execution of the plates as his work on Birds has been to any that has hitherto appeared either in England or on the Continent. The specimens are now in the collection of the British Museum.

No. 84. *Mus lutreola*.—Back black and yellowish grizelled, with longer black hairs; sides yellowish grey, beneath grey lead colour, under fur lead colour; ears with scattered short adpressed hairs; whiskers black; front teeth yellow; tail with short black adpressed bristles; length of body and head 7, tail 4, hind-feet 1 1-4 inches. The water-rat of the South Australian Colonist. Inhab.

South Australia, River Torrens, Bass's Straits, New South Wales; Musquito Islands and Macdonald's River, Van Diemen's Land, Tasman's Peninsula. J. Gould, Esq.

No 85. *Mus Greyii*, Gray.—Fur brown, with close long slender pale-tipped black hairs; sides yellowish-brown; throat and beneath yellowish; feet whiteish; ears nearly naked, with close-pressed short greyish hairs; tail with close-pressed brown hairs. Variety; belly rather more greyish-white. Inhab. South Australia, June. Length, body and head 6, tail $4\frac{3}{4}$, hind-feet 1 1-12 of an inch.

No. 86. *Mus Adelaidensis*.—Fur soft, brown, with scattered rather longer black tipped hairs, beneath pale grey brown; the under fur lead coloured; whiskers black; ears moderate, covered with short close-pressed hairs; tail elongate, brown; cutting teeth pale yellow, compressed; body and head 3, tail 3 inches, hind-feet 8-12. Inhab. South Australia. J. Gould, Esq.

In examining the Geographical distribution of the Genera, as exhibited in the foregoing table, as far as our present knowledge of these animals extends, we may state that the genera *Chœropus*, *Acrobates*, *Petaurista*, *Lagorchestes*, *Phascolarctos*, *Hapalotis*, and *Pseudomys*, are peculiar to New South Wales. The genus *Petaurus*, is also found in New South Wales, but not in the Island of Van Diemen's Land and the rest of the continent, but one of the species living there is also said to be an inhabitant of Norfolk Island, where it may probably have been introduced.

The species of the genera *Petrogale*, and *Bettongia*, are common to New South Wales, South Australia, and the North-west Coast; but they are not found in Van Diemen's Land, and the genus *Myrmecobius* appears to be peculiar to Western Australia, for it is not by any means certain, that the red shrew-mouse, discovered in Australia Felix, by Sir T. Mitchell, belongs to this genus.

The Genera *Thylacinus*, *Diabolus*, and *Dromicia*, are peculiar to Van Diemen's Land.

The species of the genera *Dasyurus* and *Perameles* are very abundant in Van Diemen's Land, but they have also representatives which are found in New Holland.

The species of the genera *Nyctophilus*, *Phalangista*, *Hepoona*, *Phascogale*, *Macropus*, *Halmaturus*, *Hypsiprymnus*, and *Hydromys*, appear to be common to all parts of the continent, and also to Van Diemen's Land.

The genera *Echidna* and *Ornithorhynchus* are found in New Holland and Van Diemen's Land, but I have not heard of their having been discovered in the Western or Southern parts of the continent of Australia.

There are some of the genera of the non-Marsupial animals, as *Rhinolophus* and *Pteropus*, which are common to various parts of Australia and the different parts of the Old World, and others, as *Canis*, *Mus*, *Scotophilus*, and *Molossus*, which are common to it and to both Hemispheres. Two Marsupial genera, *Halmaturus* and *Perameles*, have species found in New Guinea, but most probably, when they have been more carefully examined, they will be found to form a peculiar genus, allied to the Australian animals, as is the case with the tree kangaroos (*Dendrolegus*) and the Phalangers (*Cuscus*) of that country. We have a specimen of the *Halmaturus* in the British Museum, from the Leyden collection, but like many of the specimens in that collection, where the zoological specimens are made subservient to the anatomical predilections of the conservator, it has no skull, and false claws, which renders it impossible for me to define its characters. The tail has rings of scales under the hair, but this is also the case with most *Halmaturi*.

Before proceeding to the consideration of the distribution of the species, over the different districts of Australasia, it may be remarked that this is a subject surrounded with

considerable difficulty, as different naturalists do not always apply the same test to determine the distinction of the species, some considering the differences found in the specimens from different localities, as merely local varieties, and others regarding them as distinct; and others again declaring that several specimens, which cabinet naturalists are in the habit of regarding as only accidental varieties from the examination of the skins, are quite distinct when they are observed alive in their native habitat. In the preceding list, when all the specimens I have seen from a particular habitat have a similar and peculiar character, I have considered them as species; on the contrary, when the specimens from the same locality offer variations among themselves, as in those of the genus Hepoona, where the extent of the whiteness on the tail, and the variation in the colour of the body appear to differ in the specimens from the same place, I have regarded them as belonging to the same species, believing it to be a variable species which has an extensive range.

From the Table already given it appears, that of the species found on the Australian Continent, 71 are confined to it, 12 common to it and Van Diemen's Land, and one common to it and Norfolk Island; while of the 24 species found on Van Diemen's Land, 11 are found in it alone.

The species common to the Australian Continent and Van Diemen's Land, are—2. Nyctophilus. Geoffroyii —4. Scotophilus Gouldii—5. Scotophilus australis—15. Dasyurus viverrinus—27. Perameles obesula—32. Phalangista vulpina—38. Hepoona Cookii—70. Hypsiprymnus minor—81. Hydromys chrysogaster—84. Mus lutreola—94. Platypus anatinus.

The species common to Australia and Norfolk Island, but not found in Van Diemen's Land is—44. Petaurus sciureus.

The eleven species peculiar to *Van Diemen's Land*, are—11. Thylacinus cynocephalus—12. Diabolus ursinus —13. Dasyurus maculatus—17. Phascogale minima—18. Phascogale affinis—37. Dromicia nana—34. Phalangista fuliginosa—58. Halmaturus Billardieri—80. Phascolomys ursina—93. Echidna setosa—83. Mus setifer. The last species is also found in Java, from whence it might have been introduced. It has been known in Van Diemen's Land some years, and does not appear to have found its way to Australia.

Of the 72 species found in the Australian continent, six have only been recorded, as having been found on the *North-west coast*—52. Macropus unguifer—55. Halmaturus Bennettii—65. Halmaturus fasciatus—67. Petrogale brachyotis—71. Hypsiprymnus Lesueurii.

Peculiar to the *Western Australian* district are:—22. Phascogale leucogaster—23. Myrmecobius fasciatus—28. Perameles fuscoventer—29. Perameles obesula—30. Perameles lagotis—51. Macropus lunatus—54. Halmaturus manicatus—60. Halmaturus brevicaudatus—69. Petrogale lateralis—72. Hypsiprymnus Gilbertii—72. Bettongia Ogilbii—91. Hapalotis Gouldii.

To the *South Australian* district:—19. Phascogale rufogaster—49. Macropus fuliginosus—63. Halmaturus Derbianus—77. Bettongia Grayii—85. Mus Greyii—86. Mus Adelaidensis.

To the *North Coast*:—7. Molossus australis?

In the *New South Wales* district, there have been recorded the following: some of them may have a larger distribution on the Continent, when these countries become better known, and some of them (marked with a star*) are common to this district, and Van Diemen's Land.—1. Rhinolophus megaphyllus—*4. Scotophilus Gouldii—6. Scotophilus pumilus 8. Pteropus poliocephalus—9. Canis fami-

liaris Australis—10. Otaria Peronii—14. Dasyurus Geoffroyii —*15. Dasyurus viverrinus—16. Phascogale penicillata —20. Phascogale flavipes—21. Phascogale murina—25. Myrmecobius? rufus—26.* Perameles fasciatus—*27. Perameles nasuta—31. Chœropus ecaudatus—33. Phalangista xanthopus—35. Phalangista canina—36. Phalangista Cuvieri—39. Petaurista Taguanoïdes—40. Petaurista leucogaster—41. Petaurus macrurus—42. Petaurus flaviventer—43. Petaurus breviceps—44. Petaurus sciureus—45. Petaurus Peronii—46. Acrobates pygmæus—47. Macropus major—50. Macropus frænatus—53. Halmaturus Parryii—57. Halmaturus elegans—56. Halmaturus Ualabatus—59. Halmaturus Eugenii—61. Halmaturus dorsalis—62. Halmaturus Parma—64.? Halmaturus Banksianus—66. Petrogale robusta—68. Petrogale penicillata—*70. Hypsiprymnus minor—73. Lagorchestes Leporoïdes—74. Bettongia setosa—76. Bettongia Whitei—78. Bettongia rufescens —79. Phascolarctos fuscus—82. Pseudomys australis—87. Mus platyurus?—88. Mus Hovellii?—89. Hapalotis albipes —90. Hapalotis Mitchellii—92. Echidna aculeata—*94. Ornithorhynchus paradoxus.

Two species are remarkable, as being common to the East and South sides of the Continent, viz.—48. Macropus laniger—84. Mus lutreola—*26. P. fasciata. The latter is also found in Van Diemen's Land. And the four following species are common to the South, West, and East sides of the Continent—5. Scotophilus Australis—32. Phalangista vulpina—38. Hepoona Cookii, and varieties—81. Hydromys chrysogaster. These are all also found in Van Diemens' Land, and may therefore be considered as the most generally distributed of all the Australian animals. Both the Phalangista and the Hepoona are very variable in their colours, and may prove to comprise different species, when we are enabled to examine a larger number of specimens from different localities.

(D.)

Mr. Gould, who is now engaged in a work upon the Ornithology of Australia, having been solicited to furnish a list of the Birds of the Western coast, has kindly forwarded the following enumeration of the species which have come under his notice as inhabiting that part of the country. The list, although necessarily incomplete, is the most perfect that has yet been published, and will doubtless be of considerable interest to the scientific as well as the general reader.

Order RAPTORES.

Aquila fucosa, *Cuv.*
Buteo melanosternon, *Gould.*
Haliæëtus canorus, *Vig. & Horsf.*
Pandion leucocephalus, *Gould.*
Falco hypoleucos, *Gould.*
—— melanogenys, *Gould.*
—— frontatus, *Gould.*
Ieracidea Berigora, *Gould.*
Astur approximans, *Vig. & Horsf.*
Accipiter torquatus, *Vig. & Horsf.*
Milvus isurus, *Gould.*
Elanus axillaris.
Circus affinis? *Jard. & Selb.*
Nyctale ? Boobook, *Gould.*
Strix Cyclops, *Gould.*
—— delicatulus, *Gould.*

Order INSESSORES, *Vig.*

Ægotheles Novæ-Hollandiæ, *Vig. & Horsf.*
Podargus brachypterus, *Gould.*
Eurostopodus guttatus, *Gould.*
Halcyon sanctus, *Vig. & Horsf.*
Merops ornatus, *Lath.*
Hirundo pacifica? *Lath.*
Collocalia? leucosterna, *Gould.*
Cotyle pyrrhonota.
Cotyle familiaris, *Gould.*
Scisura volitans, *Vig. & Horsf.*
Micræca assimilis, *Gould.*
Rhipidura albiscapa, *Gould.*
——— isura, *Gould.* (N. W. C.)*
Piezorhynchus nitidus, *Gould.* (N. W. C.)
Ceblepyris humeralis, *Gould.*
Graucalus melanops, *Vig. & Horsf.*
Artamus albovittatus, *Vieill.*
——— personatus, *Gould.*
——— cinereus, *Vieill.*
——— leucorhynchus, *Vieill.*
Falcunculus leucogaster, *Gould.*
Cracticus destructor.
——— argenteus, *Gould.*
Gymnorhina Tibicen? *G. R. Gray.*
Strepera ——————?
Eopsaltria griseogularis, *Gould.*
Colluricincla rufiventris, *Goultl.*
——————— brunnea, *Gould.* (N. W. C.)
Oreoïca gutturalis, *Gould.*
Pachycephala gutturalis, *Vig. & Horsf.*
——————— pectoralis, *Vig. & Horsf.*

* North-West Coast.

Dasyornis longirostris, *Gould.*
Salicaria? —— ——?
Petroïca multicolor, *Swains.*
——— Goodenovii, *Jard. & Selb.*
——— bicolor, *Swains.*
Zosterops chloronotus, *Gould.*
Ephthianura albifrons, *Gould.*
Acanthiza chrysorrhœa, *Gould.*
——— inornata, *Gould.*
——— (Like A. Diemenensis, *Gould.*)
Pyrrholæmus brunneus, *Gould.*
Gerygone brevirostris, *Gould.* }
——— culicivorus, *Gould.* }
Sericornis frontalis? *Gould.*
Malurus elegans, *Gould.*
——— Lamberti, *Vig. & Horsf.* (N. W. C.)
——— splendens, *Gould.*
Stipiturus malachurus, *Less.*
Calamanthus campestris, *Gould.*
Cinclorhamphus cruralis, *Gould.*
——————— rufescens, *Gould.*
Anthus Australis? *Vig. & Horsf.*
Pardalotus ornatus, *Temm.*
——— punctatus, *Vieill.*
Cinclosoma castanotus, *Gould.*
Dicæum atrogaster, *Less.*
Amadina? acuticauda, *Gould.* (N. W. C.)
———? pectoralis, *Gould.* (N. W. C.)
Estrilda bella
——— ? annulosa, *Gould.* (N. W. C.)

* These birds have been characterized by me under the generic name of *Psilopus*; but that term having been previously employed in Entomology, I propose to alter it to *Gerygone*.

Grallina melanoleuca, *Vieill.*
Climacteris rufa, *Gould.*
Sittella melanocephala, *Gould.*
Chalcites lucidus, *Less.*
Cuculus cinereus, *Vig. & Horsf.*
——— inornatus, *Vig. & Horsf.*
Eudynamys Orientalis? *Vig. & Horsf.* (N. W. C.)
Centropus affinis, *Gould.*
Platycercus zonarius, *Wagl.*
——— icterotis, *Wagl.*
——— pileatus, *Vig.*
Polytelis melanura, *Wagl.*
Nymphicus Novæ-Hollandiæ, *Wagl.*
Pezoporus formosus, *Ill.*
Euphema elegans, *Gould.*
——— splendida, *Gould.*
——— petrophila, *Gould.*
Trichoglossus porphyrocephalus, *Diet.*
Plyctolophus Leadbeateri, *Vig.*
——— galeritus, *Vieill.*
Licmetis pastinator, *Gould.*
Calyptorhynchus naso, *Gould.*
——— Baudinii, *Vig.*
Anthochæra Lewinii, *Vig. & Horsf.*
——— lunulata, *Gould.*
Myzantha obscura, *Gould.*
Meliphaga mystacalis, *Gould.*
——— Novæ-Hollandiæ? *Vig. & Horsf.*
Ptilotis ornata, *Gould.*
——— leucotis, *Swains.*
——— plumula, *Gould.*
——— sonora, *Gould.*
Glyciphila ocularis? *Gould.*
——— albifrons, *Gould.*

Hæmatops lunulatus? *Gould.*
Acanthorhynchus superciliosus, *Gould.*
Myzomela nigra, *Gould.*

Order RASORES.

Turtur spilonota.
Peristera chalcoptera, *Swains.*
——— scripta.
Petrophassa albipennis, *Gould.* (N. W. C.)
Coturnix Australis, *Temm.*
Turnix* varius, *Vieill.*
——— velox, *Gould.*
——— castanotus, *Gould.*
Leipoa ocellata, *Gould.*

Order GRALLATORES.

Otis Australasianus, *Gould.*
Dromaïus Novæ-Hollandiæ, *Vieill.*
Œdicnemus Novæ-Hollandiæ, *Lath.*
Charadrius Virginianus, *Borkh.*
Squatarola Helvetica? *Cuv.*
Ægialitis nigrifrons, *Gould.*
——— ruficapillus.
Himantopus leucocephalus, *Gould.*
Chladorhynchus pectoralis, *G. R. Gray.*
Vanellus? pectoralis.
Erythrogonys cinctus, *Gould.*
Strepsilas collaris, *Temm.*

* The term *Turnix* having been published long prior to that of *Hemipodius*, it must, necessarily, be employed in preference to the latter; the Australian species of this form will therefore stand as:—

Turnix varius, *Vieill.*
——— melanogaster, *Gould.*
——— castanotus, *Gould.*
Turnix velox, *Gould.*
——— pyrrhothorax, *Gould.*
——— melanotus, *Gould.*

Pelidna Australis, *Jard.*
Limosa Australis, *Briss.*
Totanus stagnatilis? *Bechst.*
Hæmatopus picatus?
———— niger?
Numenius Australasianus, *Gould.*
Recurvirostra rubricollis, *Temm.*
Porphyrio bellus, *Gould.*
Tribonyx ventralis, *Gould.*
Fulica Novæ-Hollandiæ, *Gould.*
Rallus Phillipensis, *Linn.*
Zapornia ————?
Botaurus stellaris? *Steph.*
Nycticorax Caledonicus, *Less.*
Ardea Novæ-Hollandiæ, *Lath.*

Order NATATORES.

Larus leucomelas, *Vieill.*
Xema Jamesonii.
Sterna poliocerca, *Gould.*
——— Caspia? *Pall.*
——— ———? (like minuta.)
——— Dougallii, *Mont.*
Diomedea exulans, *Linn.*
———— melanophrys, *Temm.*
———— chlororhyncha, *Gmel.*
———— fuliginosa, *Gmel.*
Procellaria gigantea, *Auct.*
Puffinus brevicaudus, *Gould.*
———— chlorhynchus, *Less.*
Cygnus atratus, *Linn.*
Anser ————?
Casarka Tadornoïdes, *Eyton.*
Malacorhynchus membranaceus, *Swains.*

Nyroca Australis, *Gould.*
Anas Novæ-Hollandiæ, *Steph.*
—— nævosa, *Gould.*
Mareca castanea, *Eyton.*
Rhynchaspis rhyncotis, *Steph.*
Biziura lobata, *G. R. Gray.*
Oxyura australis, *Gould.*
Podiceps cristatus, *Lath.*
———— gularis, *Gould.*
———— poliocephalus? *Jard. & Selb.*
Pelecanus spectabilis, *Temm.*
Phalacrocorax Carbo? *Cuv.*
———————— pica.
———————— melanoleucus, *Vieill.*
Spheniscus minor.

(E.)

A Catalogue of the Species of Reptiles and Amphibia hitherto described as inhabiting Australia, with a description of some New Species from Western Australia, and some remarks on their geographical distribution, by JOHN EDWARD GRAY, F.R.S. &c. &c. *in a note to the author.*

Order I. SAURI.

Family MONITORIDÆ.

1. Odatria punctata, *Gray Ann. Nat. Hist.* i. 394.
   Grey olive, with narrow black reticulated lines, leaving large hexagonal spots. Head, limbs, and tail blackish, with a few pale spots.
   Inhab. Western Australia.

2. Hydrosaurus varius, *Gray Ann. Nat. Hist.* i. 394.
   Uaranus varius, *Merrem. Gray King's Voy.* ii. 427.
   Lacerta varia, *Shaw. White Jour. N. S. W.* 246. *t.* 3. *f.* 2. *Shaw N. Misc. t.* 83.
   Tupinambis variegatus, *Dauden.*
   Inhab. New Holland.

3. Hydrosaurus Gouldii, *Gray Ann. Nat. Hist.* i. 394.
   With two yellow streaks on the side of the neck. Scales over the orbits small, flat.
   Inhab. Australia.

4. Uaranus Bellii, *Dumeril & Bib. Erp. Gen.* iii. 493. *t.* 35. *f.* 1.
   Inhab. New Holland, *T. Bell, Esq.*

Family SCINCIDÆ.

5. Trachysaurus rugosus, *Gray King's Voy.* ii. 421. *Ann. Nat. Hist.* ii. 288.
   T. Peronii, *Wagler Icon. t.* 36.

cincus pachyurus, *Peron. MS.*
Stump-tailed Guana, *Colonist's.*
Inhab. Western Australia, Perth.

6. Trachysaurus typicus.
Brachydactylus typicus, *A. Smith South African Jour.* i.
Inhab. Western Australia, Perth.

7. Egernia Cunninghami, *Gray Ann. Nat. Hist.* ii. 288.
Tiliqua Cunninghami, *Gray Proc. Zool. Soc.*
Inhab. New Holland, Liverpool Plains.

8. Tiliqua Whitei, *Gray Ann. Nat. Hist.* ii. 288.
Tiliqua tuberculata, *Gray King's Voy.* ii. 429.
Lacerta scincoides. *Shaw Zool. t.* 81.
Scincus gigas, *Bodd.*—S. crotaphomelas, *Lacep. A. Mus. H. N.* iv. 192.—S. tuberculatus, *Merrem.* 73.
Cyclodus flavigularis, *Wagler Icon. t.* 6.
Inhab. New Holland; Java ?.

9. Tiliqua casuarinæ.
Cyclodus casuarinæ, *Dum. & Bib. Erp. Gen.* v. 749.
Inhab. "New Holland," *Dumeril.*

10. Tiliqua nigrolutea, *Gray Ann. Nat. Hist.* ii. 290.
Scincus nigroluteus, *Quoy & Gaim. Voy. Uran. t.* 41.
Cyclodus nigroluteus, *Wagler Syst.* 162.
Inhab. New Holland.

11. Tiliqua trivittata ? *Gray Syn.* *Griffith A. K.* 68. *Illust. Ind. Zool. t. Ann. Nat. Hist.* ii. 289.
Scincus ocellatus, & S. Leuerinensis, *Peron. MS.*—S. Whitei, *Lacep. Ann. Mus. H. N.* iv. 192.—S. tæniolatus & S. quadrilineatus, *Merrem.* S. moniliger, *Valenc. Mus. Paris.*
Inhab. New Holland, *Peron.* India.

12. Tiliqua tæniolata, *Gray Ann. Nat. Hist.* ii. 289.
Lacerta tæniolata, *Shaw Zool.* iii. 239. *White Jour. t.* 32.

Scincus undecimstriatus, *Kuhl Beytr.*—S. octolineatus, *Daud.*—S. a dix raies, *Lacep. A. Mus. H. N.* iv. 192.—S. multilineatus, *Lesson Voy. Coq. t.* 3. *f.* 2.
Inhab. New Holland, Sydney.

13. Tiliqua Labillardieri, *Gray Ann. Nat. Hist.* ii. 289.
Scincus Labillardieri, *Cocteau Brit. Mus.*
Lygosoma Labillardieri, *Dum. & Bib. Erp. Gen.* v. 731.
Inhab. New Holland, Islands of Waigiou and Rawack.

14. Tiliqua Napoleonis, *Gray Ann. Nat. Hist.* ii. 290.
Scincus Napoleonis, *Cuv. Brit. Mus.*—S. trifasciatus, *Peron.*
Tropidolepisma Dumerilii, var. c. *Dum. & Bib. Erp. Gen.* v. 745.
Psammite de Napoleon, *Coct.*
Inhab. "New Holland."

15. Tiliqua Kingii, *Gray Ann. Nat. Hist.* ii. 290.
Scincus Nicittensis, *Peron MS.*
Psammite de Dumeril, *Coct. Tab.*
Tropidolepisma Dumerilii β, *Dum. & Bib. Erp. Gen.* v. 745.
Inhab. New Holland, *Brit. Mus.*

16. Tiliqua aterrima.
Scincus aterrimus, *Peron.*
Tropidolepisma Dumerilii α, *Dum. & Bib. Erp. Gen.* v. 745. *t.* 50.
Inhab. New Holland.

17. Tiliqua tenuis, *Gray Griffith A. K.* 71. *Ann. Nat. Hist.* ii. 291.
Scincus erucotis, *Peron MSS.*
Lygosoma erucata, *Dum. & Bib. Erp. Gen.* v. 726.
Inhab. New Holland, *Brit. Mus.*

18. Tiliqua Stoddartii, *Gray Ann. Nat. Hist.* ii. 291.
Inhab. New Holland, *Mus. Chatham.*

19. Tiliqua Vachelli, *Gray Ann. Nat. Hist.* ii. 291.
Inhab. New Holland, *Mus. Chatham.*

20. Tiliqua leucopsis, *Gray Ann. Nat. Hist.* ii. 291.
Inhab. New Holland, *Mus. Chatham.*

21. Tiliqua australis, *Gray Ann. Nat. Hist.* ii. 291.
Inhab. New Holland, *Brit. Mus.*

22. Tiliqua Buchananii, *Gray Ann. Nat. Hist.* ii. 291.
Inhab. New Holland, *Brit. Mus.*

23. Tiliqua trilineata, *Gray Ann. Nat. Hist.* ii. 291.
Inhab. New Holland, *Brit. Mus.*

24. Tiliqua Duperreyii, *Gray Ann. Nat. Hist.* ii. 292.
Scincus Duperreyii, *Cocteau.*
Lygosoma Duperreyii, *Dum. & Bib. Erp. Gen.* v. 715.
Inhab. South Australia, Kangaroo Island.

25. Tiliqua Entrecasteaux, *Gray Ann. Nat. Hist.* ii. 292.?
Scincus Entrecasteaux, *Cocteau.*
Lygosoma Entrecasteaux, *Dum. & Bib. Erp. Gen.* v. 717.
Tiliqua Reevesii, *Gray Ann. Nat. Hist.* i. 292.?
Scinque a flanc noir, *Quoy & Gaim. Voy. Uran. Zool.* *t.* 42. *f.* 1.?
Lygosoma Quoyii, *Dum. & Bib. Erp. Gen.* v. 728.
Inhab. New Holland. Var. β. China.

26. Tiliqua Lesueurii.
Lygosoma Lesueurii, *Dum. & Bib. Erp. Gen.* v. 733.
Inhab. New Holland.

27. Tiliqua Guichenoti.
Lygosoma Guichenoti, *Dum. & Bib. Erp. Gen.* v. 713.
Inhab. New Holland.

28. Tiliqua Bougainvillii, *Coct.*
Lygosoma Bougainvillii, *Dum. & Bib. Erp. Gen.* v. 716.
Inhab. New Holland.

29. Tiliqua nævia.
Scincus nævius, *Peron.* — S. melanopogon, *Muller.* — S. erythrolæmus, *Muller. Mus. Leyd.*
Lygosoma melanopogon, *Dum. & Bib. Erp. Gen.* v. 723.
Inhab. New Holland, New Guinea, and Timor.

30. Riopa Bougainvillii, *Gray Ann. Nat. Hist.* ii. 332.
Scincus Bougainvillii, *Cocteau.*
Inhab. New Holland.

31 Lygosoma australis, *Gray Ann. Nat. Hist.* ii. 332.
Inhab. New Holland, *Mus. Chatham.*

32. Chiamela Duvaucellii, *Gray Ann. Nat. Hist.* ii. 333.
Scincus Duvaucellii, *Cocteau. Mus. Paris. fide Bibron. Mus. Brit.*
Inhab. Australia, King George's Sound, *Mus. Paris.*

33. Tetradactylus Decresiensis, *Peron. Cuv. Gray Ann. Nat. Hist.* ii. 233. *Dum. & Bib. Erp. Gen.* v. 764.
Inhab. Australia, King George's Sound, Kangaroo Island.

34. Tridactylus Decresiensis, *Peron. Gray Ann. Nat. Hist.* ii. 333.
Hemiergis Decresiensis, *Dum. & Bib. Erp. Gen.* 766.
Zignis Decresiensis, *Fitz.*
Inhab. Australia, Kangaroo Island.

35. Ronia catenulata, *t.* 4. *f.* 1. *Gray Ann. Nat. Hist.* 1841.
Inhab. Western Australia.

Family Gymnophthalmidæ.

36. Cryptoblepharis poecilopleurus, *Gray Ann. Nat. Hist.* i. 335.
Ablepharis poecilopleurus, *Weigm. N. Act. Nat. Cuv.* xvii. 183. *t.* 8. *f.* 1.—A. Peronii, *Dum. & Bib. Erp. Gen.* 813.—A. Leschenaultii, *Coct. Mag. Zool. t.* 1.
Crypt. Peronii, *Coct. Etudes, t.*

Scincus Boutonii, *Desjard.*
S. arenarius & S. furcatus, *Mus. Leyd.*
Inhab. New Holland, Java, and Isle of France.

37. Cryptoblepharis lineo-ocellatus.
Ablepharis lineo-ocellatus, *Dum. & Bib. Erp. Gen.* v. 817.
Inhab. New Holland, *Mus. Paris.*

Family Lialisidæ.

38. Lialis Burtonii, *t.* 3. *f.* 1. *t.* 5. *f.* 4. *Gray Proc. Zool. Soc.* 1834. 134. *Dum. & Bib. Erp. Gen.* v. 831.
Inhab. Australia, Western Australia.

Family Pygopidæ.

39. Pygopus lepidopus, *Merrem Syn.* 77.
Bipes Lepidopode, *Lacep. Ann. Mus. H. N.* iv. 193, 209 *t.* 55. *f.* 1.
Sheltopusik Novæ Hollandiæ, *Oppell.*
Hysteropus lepidopus, *Boug.*
H. Novæ Hollandiæ, *Dum. & Bib. Erp. Gen.* v. 832.
Inhab. New Holland.
There are sometimes some scales between the anterior frontal plates.

40. Delma Fraseri, *t.* 4. *f.* 3. *Gray Zool. Misc.*
Inhab. New Holland, Liverpool Plains? Western Australia, *J. Gould.*

Family Rhodonidæ.

41. Rhodona punctata, *Gray Ann. Nat. Hist.* ii. 335.
Brachystopus lineato-punctatus, *A. Smith MS.? Dum. & Bib. Erp. Gen.* v. 779.
Inhab. New Holland, South Africa, *Dumeril!*

42. Soridia lineata, *t.* 3. *f.* 2. *Gray Ann. Nat. Hist.* ii. 335.
Prepæditus lineatus, *Dum. & Bib.* v. 788.
Inhab. Australia, Western Australia, *J. Gould*, common.

43. Chelomeles quadrilineatus, *Dum. & Bib. Erp. Gen.* v. 774.
Inhab. New Holland, *Mus. Paris.*

Family Aprasiadæ.

44. Aprasia pulchella, *t.* 1. *f.* 2. *Gray Ann. Nat. Hist.* ii. 331.
Inhab. Western Australia.

Family Geckotidæ.

45. Platydactylus ornatus, *Gray.*
Phelsuma ornata, *Gray King's Voy.* ii. 428.
Inhab. New Holland.

46. Phyllodactylus strophurus, *Dum. & Bib. Erp. Gen.* iii. 397. *t.* 32. *f.* 1.
Inhab. West Coast of Australia, Sharks Bay, *Quoy & Gaimard.*

47. Phyllodactylus porphyreus, *Dum. & Bib. Erp. Gen.* iii. 393.
Gecko porphyreus, *Daud.*
Sphærodactylus porphyreus, *Wagler.*
Inhab. New Holland.

48. Phyllodactylus Lesueurii, *Dum. & Bib. Erp. Gen.* iii. 392.
Inhab. New Holland and New Guinea.

49. Diplodactylus vittatus, *Gray Proc. Zool. Soc.* 1832, 40.
Phyllodactylus vittatus, *Dum. & Bib. Erp. Gen.* iii. 400.
Inhab. New Holland, Liverpool Plains.

50. Peropus variegatus.
Hemidactylus variegatus, *Dum. & Bib. Erp. Gen.* iii. 353.
Inhab. West Coast of Australia, Sharks Bay, and Van Diemen's Land.

51. Phyllurus platurus, *Cuv. R. A.* ii. 58.—P. Cuvieri, *Borg.*
Lacerta platura, *Shaw. White Journ. N. S. W.* 246. *t.* 3. *f.* 2.—L. discosura, *Lacep.*
Stellio phyllurus, *Schneider.*—S. platurus, *Daud.*
Gecko platicaudus, *Schinz.*
Agama platyura & A. discosura, *Merrem.*
Gymnodactylus platurus, *Wagler.*
G. phyllurus, *Dum. & Bib. Erp. Gen.* iii. 428.
Cyrtodactylus platurus, *Gray.*
Inhab. New Holland.

52. Phyllurus Miliusii, *Bory St. Vincent Dict. Class II. N.* vii. 183. *t.*
Cyrtodactylus Miliusii, *Gray.*
Gymnodactylus Miliusii, *Dum. & Bib. Erp. Gen.* iii. 450. *t.* 33. *f.* 1.
Inhab. New Holland, *Mus. Paris.*

Family Agamidæ.

53. Chlamydosaurus Kingii, *Gray King's Voy. Aust.* ii. 424. *t.* *Dum. & Bib. Erp. Gen.* iv. 441. *t.* 45.
Inhab. West Coast of Australia, Careening Bay, A. Cunningham, Esq. Port Nelson. Capt. Grey sent a fine specimen of this species to the Museum during his travels.

54. Lophura Lesueurii, *Gray Syn. Griffith A. K.* 60.
Istiurus Lesueurii, *Dum. & Bib. Erp. Gen.* iv.
Inhab. Australia, New Holland.

55. Grammatophora barbata, *Kaup Isis. Gray. Dum. & Bib.*?
Agama barbata, *Cuv. R. A.* ii. 35.
Inhab. New Holland.

56. Grammatophora muricata, *Kaup Isis*, 1827. 621. *Gray. Dum. & Bib.*
Lacerta muricata, *Shaw. Zool.* iii. *t.* 63. *f.* 1.
Agama muricata, *Daud.* — A. Jacksoniensis, *Kuhl. Guerin Icon. t.* 3. *f.*
Amphibolus muricatus, *Wiegmann.*
Inhab. New Holland.
Var. 1. Diemenensis, *Gray Ann. Nat. Hist.* 1840.
Inhab. Van Diemen's Land.
Var. 2. Adelaidensis. *Gray Ann. Nat. Hist.* 1840.
Inhab. Western Australia, Adelaide.

57. Grammatophora Gaimardii, *Dum. & Bib. Erp. Gen.* iv. 470.
Inhab. West Coast of Australia, Sharks Bay.

58. Grammatophora Decresii, *Dum. & Bib. Erp. Gen.* iv. 472.
Inhab. Australia, Kangaroo Island.
Var. 1.—Inhab. Western Australia.

59. Grammatophora cristata, *Gray Ann. Nat. Hist.* 1840.
Inhab. Western Australia, *J. Gould.*

60. Moloch horridus. *t.* 2. *Gray Ann. Nat. Hist.* 1841.
Inhab. Western Australia, *Capt. G. Grey. J. Gould.*

61. Uromastix griseus, *Cuv. R. A.* ii. 34.
Inhab. "New Holland." *Peron.*
It is very probable that this species was established on a variety or discoloured specimen of U. Hardwickii, and it is very doubtful if it is a native of New Holland.

Family, CHAMÆLEONIDÆ.

62. Chamæleo bifurcus, *Brongn. Bull. Soc. Philom. n.* 36. *f.* 2. *Dum. & Bib. Erp. Gen.* iii. 233. *t.* 27. *f.* 3.
Cham. bifidus, *Latr.*
Inhab. "New Holland."
MM. Dumeril & Bibron, in the work cited, state that this species is found in New Holland, but I believe this is

a mistake, as I have neither seen nor heard of any species of this genus being found in Australia.

Order II. OPHIDII.

Family VIPERIDÆ.

63. Acanthophis palpebrosa—A. cerastinus, *Lacep. Ann. Mus.* iv. 100. *Guerin Icon. t.* 24. *f.* 2.
A. Brownii, *Leach Zool. Misc.* 1. *t.* 3.
Boa palpebrosa, *Shaw Zool.* iii. 362.
Ophryas acanthophis, *Merrem.* 147.
Schlingende Natter, *Merrem Beytr.* ii. *t.* 3.
Vipera acanthophis, *Schlegel.* ii. 605. *t.* 21. *f.* 21, 22, 23.
Inhab. New Holland.

Family COLUBRIDÆ.

64. Tropidonotus Mairii, *Gray.*
Inhab. New Holland, *Dr. Mair, 39th Reg. Mus. Chatham.*

65. Leptophis punctulatus, *Gray, King's Voy.* ii. 432.
Inhab. Careening Bay, *James Hunter, Esq.*

66. Leptophis spilotus, *Gray, King's Voy.* ii. 433.
Inhab. Australia Cape, *P. P. King, R.N.*

67. Naja custa, *Schlegel Phy. Serp.* ii. 486.
Inhab. Australia, King George's Sound, *Mus. Paris.*

68. Naja bungaroides, *Schlegel Phys. Serp.* ii. 477.
Inhab. New Holland, Port Jackson, and India, *Mus. Paris.*
Var. I. New Holland, *Dr. Mair.*

69. Trimesurus leptocephalus, *Lacep. Ann. Mus.* iv. 196. *t.* 56. *f.* 1.
Crimson-sided Snake, Coluber porphyraicus, *Shaw Zool. t.* 110. New Holland, *t.* 10.
Hurria porphyraica, *Merrem.*
Boa lævis, *Lacep. Ann. Mus.* iv. 195.

Duberia porphyriaca, *Fitz.*
Acanthophis tortor, *Lesson Voy. t.* 6. *Guerin Icon. t.* 24. *f.* 1.
Pseudechis porphyriacus, *Wagler.*
Alecto, *Wagler.*
Oplocephalus, *Cuv. R. Anim.* ii. 94.
Naja porphyraica, *Schlegel.* i. 181. ii. 479. *t.* 17. *f.* 6. 7.
Inhab. New Holland, Sidney.

70. Trimesurus olivaceus, *Gray.*
Inhab. New Holland, *Dr. Mair.*

71. Calimaria diadema, 65. *f.* 3. *Schlegel Phys. Serp.* i. 131. ii. 32.
Inhab. Australia, New Holland, *Quoy and Dr. Mair.*
West. Australia, *Mr. Gould.*

72. Calimaria annulata, *Gray.*
Snake, n. 2. *White Jour. App.* 259. *t. f.* 2.
Inhab. New Holland, *Dr. Lewis.*

73. Tortrix pseudo-eryx, *Schlegel Phys. Serp.* i. 128. ii. 19.
Inhab. New Holland, Port Jackson, *Peron.*

74. Tortrix australis, *Gray.*
Inhab. New Holland, *Mus. Chatham, n.* 68.

75. Elaps Psammophis, *Schlegel Phys. Serp.* i. 182. ii. 454.
Inhab. New Holland.

76. Elaps coronatus, *Schlegel Phys. Serp.* i. 184. ii. 454.
Inhab. New Holland.

77. Elaps Gouldii, *t.* 5. *f.* 1. *Gray Ann. Nat. Hist.* 1841.
Inhab. Western Australia.

78. Elaps? Lewisii, *Gray.*
Inhab. New Holland, *Dr. Lewis.*

Family Boidæ.

79. Python spilotes.
P. punctatus, *Merrem Tent.* 150.

P. Peronii, *Cuv. R. A. Wagner, Icon. t.* 1.
Coluber spilotes, *Lacep. Ann. Mus.* iv. 195.
Echidna spilotes, *Merrem.*
Australian Snake, *Shaw's Zool.* 505.
Snake, n. 1. & 5. *White Voyage Append.* 159. *t. f.* 5. & *t. f.* 1.
Inhab. New Holland, *White.* King George's Sound, *Quoy.*

Family HYDRIDÆ.

80. Aspisurus laticaudatus.
Coluber laticaudatus, *Linn. Mus. Ad. t.* 16. *f.* 1.
Platura fasciata, *Latreille.*
Pl. semi-fasciata, *Reinw.*
Laticauda imbricata, *Laur.*
Aspisurus lævis, *Lacep. Ann. Mus.* iv. 197. *t.* 56. *f.* 3.
Hydrus colubrinus, *Schlegel Phys. Serp.* 514. *t.* 18. *f.* 18—22.
Inhab. New Holland

81. Pelamis bicolor, *Dand.*
Anguis platura, *Linn. S. N.* 391.
Hydrophis platura, *Latr.*
Hydrus bicolor, *Schneider.*
Inhab. New Holland, Port Jackson, *Forster.*

82. Disteria doliata, *Lacep. Ann. Mus.* iv. 199. *t.* 57. *f.* 2.
Hydrophis schistosus, *Daud. Schlegel Phys. Serp.* 500.
Inhab. New Holland.

Order III. CHELONIA.

Family CHELYDÆ.

83. Platemys Macquaria, *Dumeril & Bib. Erp. Gen.* ii. 458.
Hydraspis Macquaria, *Gray Syn. Rept.* i. 40.
Emys Macquaria, *Cuv. R. Anim.* ii. 11.
Inhab. New Holland?

84. Hydraspis australis, *t.* 6. *n. s.*
Inhab.

85. Chelodina longicollis, *Gray Syn. Rep.* 39. C. Novæ Hollandæ, *Dum. & Bib. Erp. Gen.* ii. 445. *t.* 21. *f.* 2.
Testudo longicollis, *Shaw Gen. Zool.* iii. 62. *t.* 16. *Zool. New Hol.* i. 19. *t.* 7.
Emys longicollis, *Schw. Prod.* i. 309. 433.
Hydraspis longicollis. *Bell Zool. Jour.* iii. 512.
Inhab. New Holland, Sydney.

86. Chelodina oblonga, *t.* 7. *n. s.*
Inhab. Western Australia.

Family CHELONIADÆ.

87. Chelonia caretta.
Testudo caretta, *Solander MS. Banks Icon. ined. in Brit. Mus. n.* 41, 42, 43.
Inhab. Sea. *Lat.* 37, *South, Dec.* 23, 1768. *Capt. Cook.*

88. Chelonia imbricata.
Inhab. Sea, New Holland, New Guinea.

89. Chelonia Mydas.
Testudo Mydas, *Solander MS. Banks Icon. ined. in Brit. Mus. n.* 39, 40.
Inhab. New Holland, Endeavour River, Cook's Voyage.

Order EMYDOSAURI.

Family CROCODILIDÆ.

90. Crocodilus vulgaris, *Cuv. Ann. Mus.* x. 40. *t.* 1. *f.* 5. 12. *t.* 2. *f.* 7.
Inhab. New Holland, Mouth of Endeavour River, Captain Cook.

Class AMPHIBIA.

Family RANIDÆ.

91. Cystignathus Peronii, *Dum. & Bib. Erp. Gen.* viii. 409.
Inhab. New Holland? *Peron.*

92. Cystignathus dorsalis, *Gray Ann. Nat. Hist.* 1841.
Inhab. Western Australia.

93. Crinia Georgiana, *Tschudi*, ii. 78.
Cystignathus Georgianus, *Dum. & Bib. Erp. Gen.* viii. 416.
Inhab. Australia, King George's Sound.

94. Heleioporus albopunctatus, *tab.* 1. *f.* 2. *Gray Ann. N. Hist.* 1841.
Inhab. Western Australia.

Family HYLIDÆ.

95. Litoria Freycinetii, *Dum. & Bib. Erp. Gen.* viii. 504. *t.* 88. *f.* 2.
Inhab. New Holland, Port Jackson.

96. Hyla Peronii, *Dum. & Bib. Erp. Gen.* viii. 569.
Dendrohyas Peronii, *Tschudi*, 75.
Inhab. New Holland, *Peron.*

97. Hyla cœrulea.
Hyla cyanea, *Daud. Schlegel. Dum.*
Blue Frog, *White Jour. App.* 248.
Rana Australasiæ, *Schneider.*
R. cœrulea, *Shaw Gen. Zool.* iii. 113. *Daud. Mer.*
Calamites cyanea, *Fitz. Tschudi.*
Calamites cœrulea, *Wagler.*
Inhab. New Holland, New Guinea, Timor.

98. Hyla Jervisiensis, *Dum. & Bib. Erp. Gen.* viii. 580.
Inhab. New Holland, Jervis Bay.

99. Hyla Lesueurii, *Dum. & Bib. Erp. Gen.* viii. 595.—H. oculata, *Péron MS.*
Inhab. New Holland, Port Jackson.

100. Hyla Ewingii, *Dum. & Bib. Erp. Gen.* viii. 597.
Inhab. Van Diemen's Land.

101. Hyla citropa, *Peron & Lesueur. Dum. & Bib. Erp. Gen.* viii. 600.
Dendrohyas citropa, *Tschudi*, 75.
Inhab. New Holland, Port Jackson.

102. Hyla aurea.
Rana aurea, *Lesson Voy. Coy. t. 7. f. 2.*
Hyla Jacksoniensis, *Dum. & Bib. Erp. Gen.* viii. 602.
Ranoidea Jacksoniensis, *Tschudi.*
Inhab. New Holland, Port Jackson.

103. Hyla adelaidensis, *t. 8. f. 2. Gray Ann. Nat. Hist.* 1841.
Inhab. Western Australia.

104. Hyla bioculata, *t. 8. f. 1. Gray Ann. Nat. Hist.* 1841.
Inhab. Western Australia.

105. Uperoleja marmorata, *Gray Ann. Nat. Hist.* 1841.
Inhab. Western Australia.

Family Bufonidæ.

106. Phreniscus australis, *Dum. & Bib. Erp. Gen.* viii. 725.
Bombinator australis, *Gray Proc. Zool. Soc.*
Inhab. New Holland.

107. Breviceps Gouldii, *Gray Ann. Nat. Hist.* 1841.
Breviceps Heliogabali, *Gray, tab. 1. f. 1.*
Inhab. Western Australia.

ROYAL ZOOLOGICAL SOCIETY
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1 Ronia catenulata. (Gray.)
2. Aprasia pulchella (Gray.)
3. Delma Fraseri. (Gray.)

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1.a

1.b

f 1.

2.a.

2.

2.b.

1. Lialis Burtonii. (Gray.)
2. Soridia lineata. (Gray.)

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I have been induced to add to the foregoing list the following observations on the more obscure and hitherto unknown genera and species.

Ronia, Gray.—Head rather shelving, shielded with one transverse frontal and two large vertebral plates, the hinder largest; the rostral plates large, with two unequal superciliary plates. The nasal plate triangular, interposed between the rostral plate and the frontal ones, with the nostrils in its centre; loreal plates two, square; labial plates large; ears none, only a very indistinct sunk dot in their place. Body cylindrical; tail conical, tapering. Scales smooth, ovate, imbricate, those of the belly 6-sided. The front limbs very small, rudimentary, undivided; the hinder limbs moderately developed, ending in two very unequal toes, with distinct claws.

35. *Ronia catenulata*, Gray, t. 4, f. 1.—Back grey, with eight series of small black dots, one dot on the centre of each scale; cheeks black speckled; sides and beneath whitish.

Body 3½, tail 2½ inches.

Inhab. Western Australia.—*Mr. J. Gould.*

The scales under the tail are rather larger, and the spots on the tail are also rather larger than those on the back.

38. *Lialis Burtonii*, t. 3, f. 1. Gray Proc. Zool. Soc. 1834. 134. Dum. & Bib. H. R. 831.—Pale brown, back with three longitudinal brown streaks, each occupying half of two series of scales; the centre streak divided into two over the nape and head, uniting together again over the tip of the nose.

Inhab. Western Australia.—*J. Gould.*

Family *Pygopidæ*.—Head short, with two or three pairs of narrow frontal shields, similar to, and behind the nasal shield, with two odd large vertebral shields; nostrils oblong, in the suture between the outer angle of the nasal shield and the front loreal shields; ears distinct, tympanum sunk; eyes surrounded with a series of scales; belly with two or four series of broad 6-sided ventral shields; tail with three series of broader shields, the central the broadest; limbs two, rudimentary, undivided, scaly, on the side of the vent; throat covered with small scales; lower labial plates large.

Pygopus.—The scales of the back keeled, with a series of numerous præanal pores; pupil round; the hinder limbs elongate.

Delma.—The scales smooth; præanal pores none; pupil elliptical, erect; hinder limbs short.

42. *Soridia lineata*, t. 3, f. 2.

M. Bibron in the work quoted observes:—"La *Soridia lineata* de M. Gray n'est pas different d'une espece de Scincoidien du Cap que nous avons vue dans la collection de M. Smith a Chatham et de laquelle nous avions pris une description qui s'est malheureusement egarée."—p. 787. And again—"Nous croyons que c'est par erreur que M. Gray a indiqué cette espece comme provenant de la Nouvelle Hollande, nous pensons plutot qu'elle est originaire du Cap, et la meme que celle dont nous parlions tout a l'heure ou le Scincoidien que d'accord avec le Dr. Smith nous nous proposions d'appeller *Prœpeditus lineatus*."—p. 788.

I do not know what Dr. Smith's animal may be, but the account of *Prœpeditus*, given by M. Bibron, is only a translation of my description of *Soridia!* It is not probable that this animal should come both from Australia and the Cape. It is certainly from New Holland.

44. Aprasia.—The head small, shielded; muzzle rounded, rather produced, with two pairs of large frontal shields, covering the cheeks, a large six-sided elongated vertebral shield, and a pair of small superciliar shields; rostral and labial shields large, few; the nostrils small, in the sutures between the tip of the front upper labial, and the anterior frontal plates; eyes circular, edged with a series of small scales; pupil round; ears none; body and tail cylindrical, tapering, covered with hexangular scales, the ventral shields rather broader; limbs none.

By some mistake the slip containing the description of this genus in my synopsis of the slender-tongued Saurians, got into the wrong place with the *Tiliquæ*, instead of being near *Anguis*.

56. *Grammatophora muricata.*—The young animals have a series of small spines on each side of the base of the tail, and a series of spots on each side of the back.

Mr. Gould has brought home two very distinct local varieties.

Var. 1. *Diemensis.*—*Young* dark-coloured, with vermiculated marks on the chin, chest, and abdomen. The *adult* dark, beneath gray, varied with black spots placed in irregular lines.

Inhab. Van Diemen's Land.

Var. 2. *Adelaidensis.* *Young* pale above and beneath, with three broad diverging black lines on the chin, leaving an oblong spot in the centre of the throat, with a broad streak on the chest separated into three lines on the abdomen, which unite together again on the pubis. The *adult* gray, with a few spots beneath.

58 *Grammatophora Decresii*, Dumeril and Bibron, Erp. Gen. iv. 472. ?—Tail conical, with nearly regular scales, the base rather swollen, without any series of spines on the side; the nape and back with a series of rather larger, low, compressed scales; back with small sub-equal scales, and a few larger ones in cross series; side of the head near the ears and side of neck with two or three ridges crowned with short conical spines. In spirits black, yellow spotted and varied, beneath gray, vermiculated with blackish; tail black-ringed.

Inhab. Western Australia.

So much smaller than *G. muricata*, that I might have considered them as young animals, if one of them had not had the body filled with well-formed eggs; and the tail is much shorter in comparison than even in the young of that species.

They agree in most points with the description given by MM. Dumeril and Bibron, but not in the colour and in the size of the tail. The specimens in our collection greatly differ in their colour, but are all very different from any other species.

59. *Grammatophora cristata.*—Nape with a crest of distinct, rather short, curved, compressed, spinose scales; back and tail with a series of compressed keeled scales, forming a slight keel; occiput with separate short strong conical spines: sides of the neck and back with folds crowned with series of short compressed scales; base of the tail with some scattered larger scales. In spirits, dull olive; crown black with large white spots, beneath black; middle of the belly, and under

sides of the base of the tail white; tail with black rings at the end; feet whitish.

Inhab. Western Australia. *Mr. J. Gould.*

The underside is coloured somewhat like *G. maculatus* (*G. Gaimardii*, Dum. and Bibron), but the sides of the head near the ears are spinose, and the nape is distinctly crested.

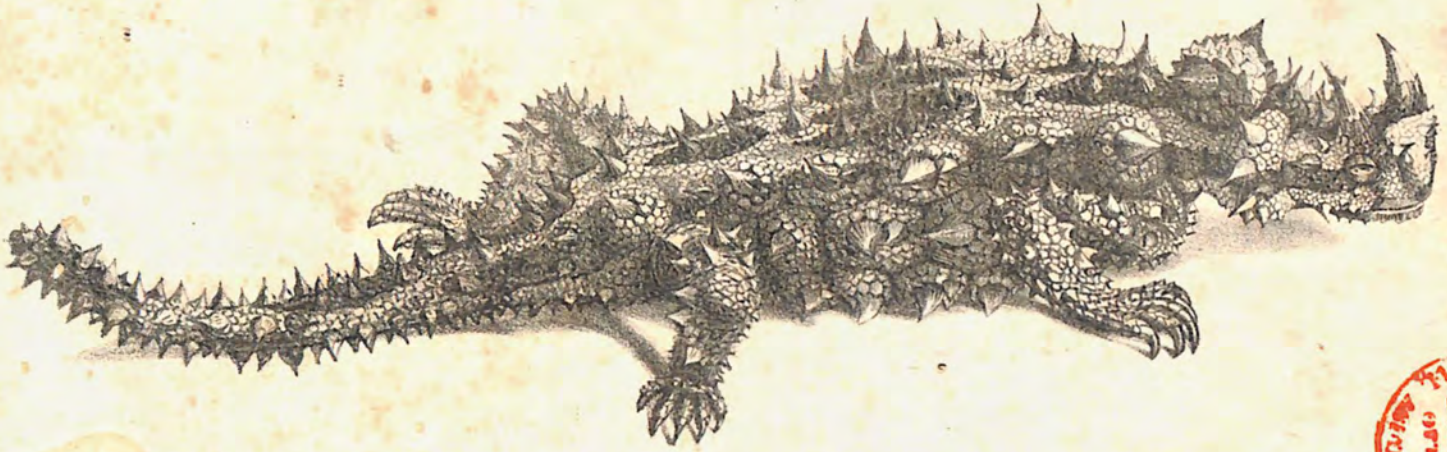
But as Dumeril and Bibron's species is only described from a single specimen which is in a bad state, and has lost its epidermis, and as the description itself, though long, refers chiefly to parts which do not differ in the species of the genus, this species may prove not to be different from it.

These authors, in giving the character of *Grammatophora Gaimardii* and *G. Decresii*, appears to place great reliance on the one having tubular and the other non-tubular femoral pores, which is a fact entirely dependent on the state in which the animal might be at the time when it was put into the spirits, as I have verified by comparing numerous specimens of different reptiles furnished with these pores.

But in this genus the size of the pores is apparently of less importance than in many others, for they appear to be quite invisible in some states of the animal: thus out of many specimens of *G. muricata* brought by Mr. Gould from Van Diemen's Land and Western Australia, eight specimens have no visible pores; these specimens differ from the others in being of a rather paler colour beneath. This state of the pores may entirely depend on the manner in which they were preserved, for all these specimens had a slit made into their abdomen to admit the spirits; while in all the specimens in which this care had not been taken the pores are distinctly seen, sometimes moderately sized, and at others tubularly produced.

60. Moloch, Gray.—Body depressed, covered with irregular, unequal, small, granular plates, each furnished with a more or less prominent central spine, and with a series of large, conical, convex, acute spines; head and limbs covered with similar scales and spines; head small, with very large spines over each of the eyebrows; tail with irregular rings of large acute spines; femoral and subanal pores none; teeth small, subequal; toes 5·5, short, covered above and below with keeled scales; claws long, acute.

Pl. 2



Moloch horridus. (Gray.)

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The external appearance of this Lizard is the most ferocious of any that I know, the horns of the head and the numerous spines on the body giving it a most formidable aspect. The scales of the back are small and unequal; they gradually increase in size as they approach the base of the conical spines, which is surrounded with a ring of larger scales with longer spines; the large spines are conical; rather compressed, spinulose below, smooth and acute at the tip, and are usually furnished with a sharp-toothed ridge on the front edge, and sometimes on both. These spines only consist of a horny sheath, placed on a fleshy process of the exact form and appearance of the spines they bear.

The scales of the under side of the body are of the same form as those of the back, and are furnished with similar but smaller and less produced spines. The back of the neck of the two specimens I have seen is furnished with a large rounded protuberance like a cherry, covered with large granular spinous scales, and armed on each side with a large conical spine; but I do not know if this is common to the species or merely accidental in these individuals; at any rate it adds considerably to the singularity of their appearance.

I have named this genus, from its appearance, after "*Moloch*, horrid king."

60. *Moloch horridus*, t. 2.—Pale yellow, marked with dark regular spots; sides and beneath with black-edged dark red similar spots.

Inhab. Western Australia. The Hon. Capt. G. Grey, and John Gould, Esq.

The marks on the body are very definite, but from the irregularity of their form they are not easily described.

The lips are dark brown, with two streaks up to the small spines on the forehead; there is a dark cross-band from the base of the two large horns over the eyebrows, running behind, and then dividing into broad streaks, one along each side of the centre of the back of the neck to between the shoulders, crossing the nuchal swelling. In the middle of the back there is a very large black patch nearly extending from side to side, and over the loins are two oblong longitudinal black spots; the dark lines commencing from the lower angle of each eye extend along

the upper part of each side to the upper part of the groin; the front of the fore- and hind-legs, and the sides are marked with similar dark bands.

A dark band commences from the hinder part of the lower lip, merging in the throat, and expanding out so as to be united together at the back part of the chin. There is a large rather oblong spot in the centre of the chest and the hinder part of the abdomen, separated from each other by a large somewhat triangular spot on each side of the middle of the abdomen.

Body 4½ inches.

This is the Spinous Lizard exhibited by Mr. Gould at the meeting of the Zoological Society in Oct. 1840.

64. *Tropidonotus Mairii*, Gray.—Olive, beneath pale olive, vertebral scales darker, slightly spotted; labial shield pale, dark edged. The dorsal and lateral scales keeled, placed in longitudinal series; the keels continued, equal; chin shields two pairs, long; throat scaly on the sides, shielded in the middle; loreal shields equal; one high anterior, and three small posterior ocular shields; temples shielded; nostrils in the suture between the scales; the anterior frontal narrow, moderate; eyes large, convex, pupil round.

Inhab. New Holland, *Dr. Mair*, 39 *Reg.*

White, in the Appendix to his Journal, mentions and figures two snakes (*n.* 1 and 2, p. 258), but his descriptions are so short, and his figures so indistinct, compared with what are now required to determine the species of snakes, that I am unable to apply them with certainty to any of the species here recorded.

68. *Naja bungaroides*, var.—Brown, varied with a few whitish cross bands; last series of scales and beneath whitish; ventral shield black in front; subcaudal plates, one-rowed; throat scaly; chin shields two pairs; eyes lateral, pupil round; front pair of frontal plates short; nostrils lateral, in two small shields, loreal shields none; one large anterior, and two moderate posterior ocular shields; lower temporal shield in the labial ones. Scales quite smooth, broad.

Inhab. New Holland. *Dr. Mann.*

69. *Trimesurus leptocephalus*.—Lacepède described this species

twice, once as a *Boa*, and then as a *Trimesurus*. Mr. Schlegel observes that there is one of Baudin's original specimens in the Leyden collection, and that the scales are not in the least keeled, though Lacepède described them to be so. Lesson believing it to be an undescribed species formed for it his genus *Acanthophis;* Wagler has also formed two genera for this single species; and Cuvier formed from a variety of it with subcaudal bands a third genus, under the name of *Oplocephalus.*

70. *Trimesurus olivaceus,* Gray.—Olive-green, scales black; head dark with a black streak along each side, enclosing the eyes and united by a black band across the nape; lips, and beneath white; lips and chin black dotted, front of ventral shields blackish, throat scaly, chin shields two pairs. Under the epidermis bluish green; body elongate, tapering; tail moderate tapering, subcaudal shields one-rowed, longer towards the tip; scales all smooth, imbricated, subequal, rather larger below; head small, rather tapering in front, rounded; eyes rather small, pupil round, head shields normal; the nostrils lateral in the suture between two shields, hinder shield elongate; loreal shields none; one large anterior and two moderate post-ocular shields; labial shields subequal, lower temporal inserted.

Inhab. New Holland. *Dr. Maw.*

71. *Calamaria diadema,* t. 5, f. 3.—Body cylindrical, scales small; ventral shields brown, rounded; tail rather short, tapering; subcaudal plates two, round. Head small, indistinct, moderately long; head shields normal, first frontal small; nostril lunate, in the middle of a triangular nasal shield; no loreal; one rather large upper anterior, two posterior ocular shields, lowest largest; temples shielded; labial shield moderate. White dorsal scales with a distinct brown edge; head and nape black, with a broad white occipital band; beneath white.

New Holland. *Dr. Mair.*

72. *Calamaria annulata,* Gray.—Snake, n. 2. *White's Journ. Append.* 259, *f.* 2.—White (in spirits), with twenty-eight black rings, (twenty-five on the body and three on the tail;) head

with two black bands, one on the end of the nose and the other with the eyes in front of it. Tip of the tail black; eyes small, pupil round; nostrils in the centre of a shield, lateral, erect; loreal shields none; one anterior oblique, and two small post-ocular shields.

Inhab. New Holland. *Dr. Lewis.*

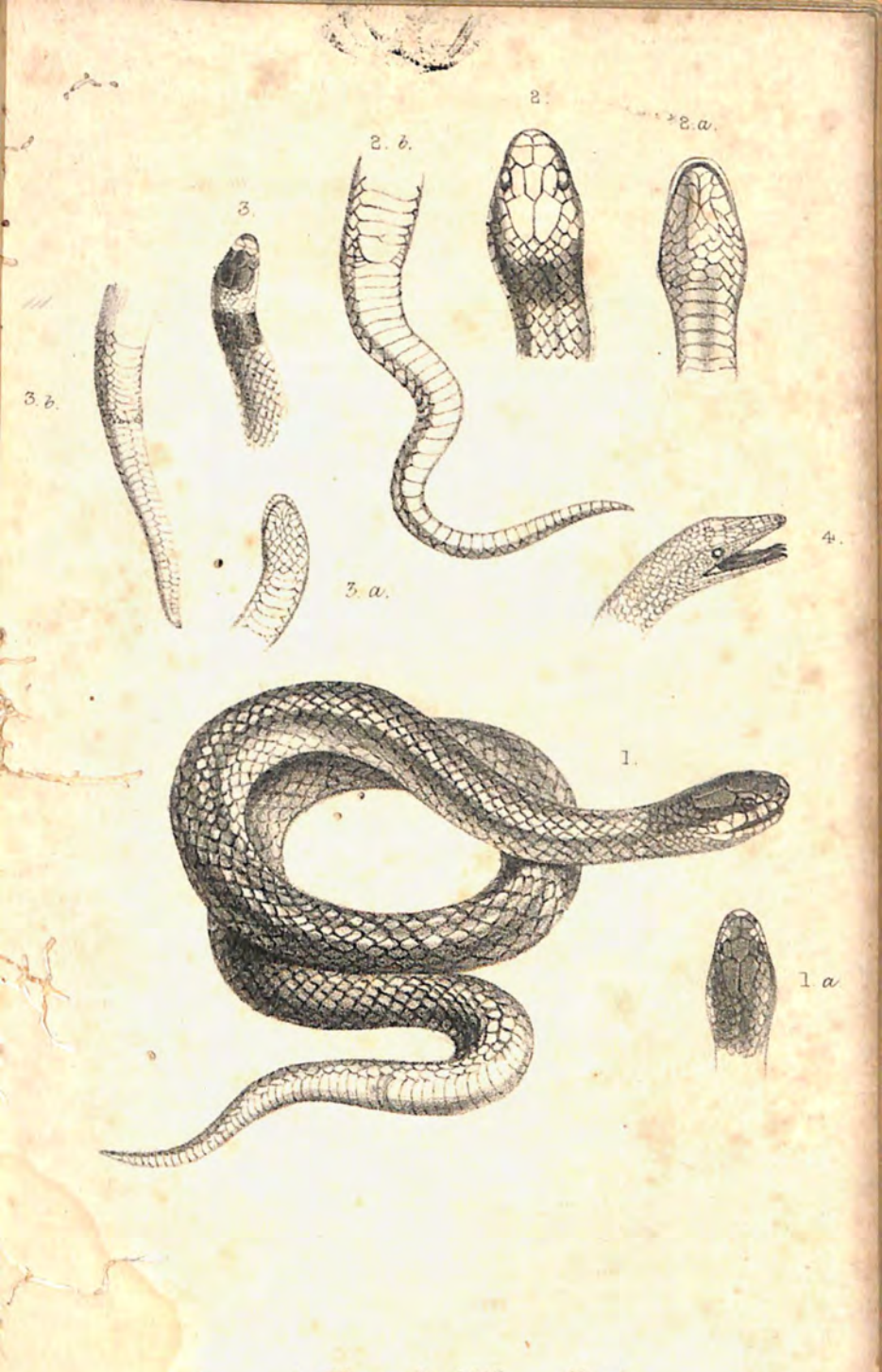
74. *Tortrix australis* —Pale olive, scales black edged, on the sides widest; beneath bluish, with a white edged black band across the end of the muzzle; a white band before the front and back of the eyes, and a triangular black spot at the lower hinder angle of the eyes; pupil round; one large and two posterior ocular shields, no loreal shields; nostrils lateral, in the suture between the two nasal shields; scales smooth imbricate, those of the sides larger, of the tail six-sided.

77. *Elaps Gouldii*, Gray, t. 5, f. 1.—Pale yellowish; the scales of the back small, 6-sided, with a dark anterior margin, giving the back a netted appearance. Top of the head and nape black, with a yellow spot on the rostral scale on each side just before the eyes. Head small, the occipital plates large elongate; the nasal plate triangular; one moderate anterior, and two subequal posterior ocular shields; six upper and lower labial shields, the fourth under the eyes; eyes small, pupil round. There is an indistinct small yellow spot behind the upper part of the eye; but this may be an accidental variety, as the spots on the two sides are not equally defined.

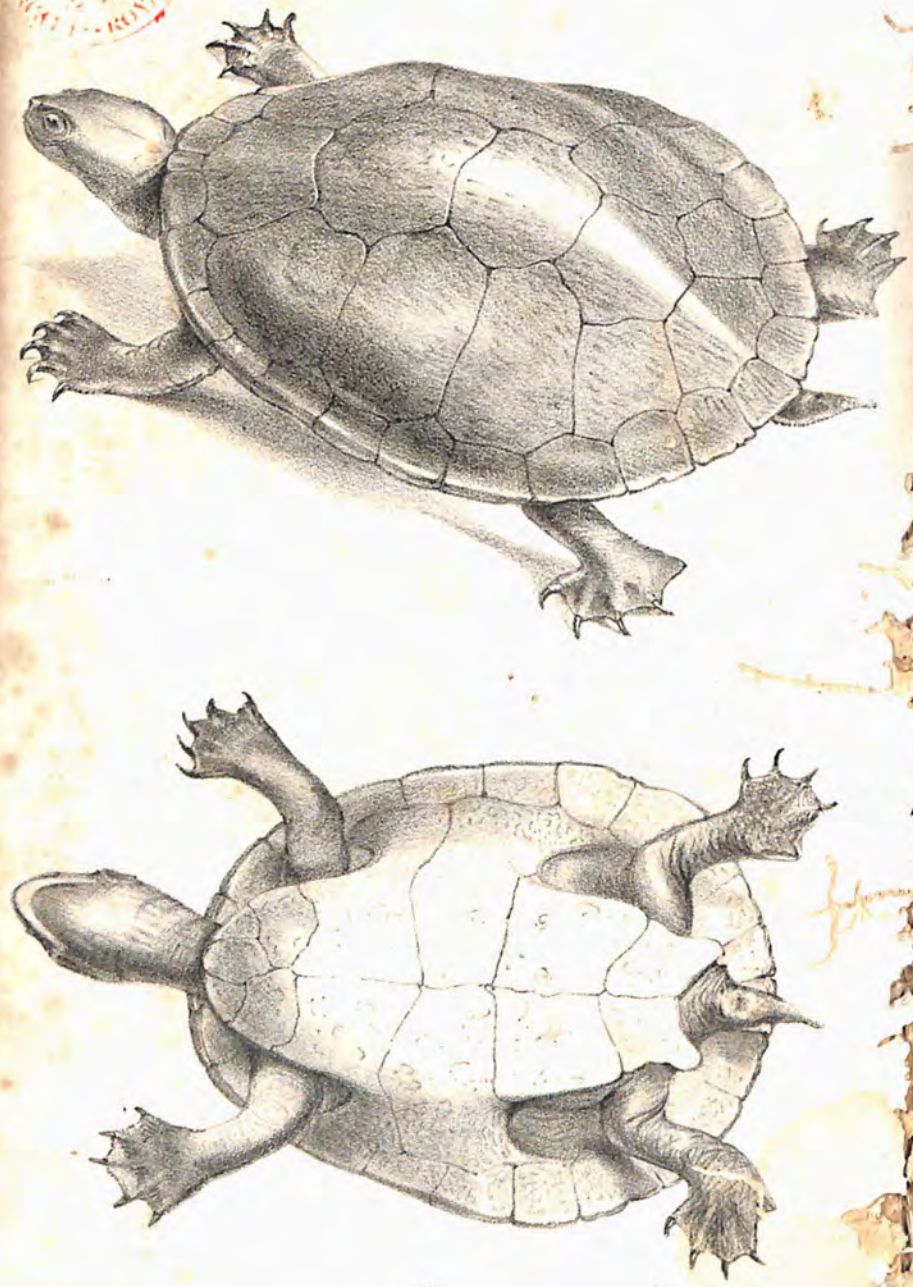
Inhab. Western Australia.

This species resembles *Calamaria diadema*, which is also found in Western Australia, but it is larger, and the head is larger in comparison with the body, and in this species it is the base of scales, while in the later it is the outer margin, that is dark.

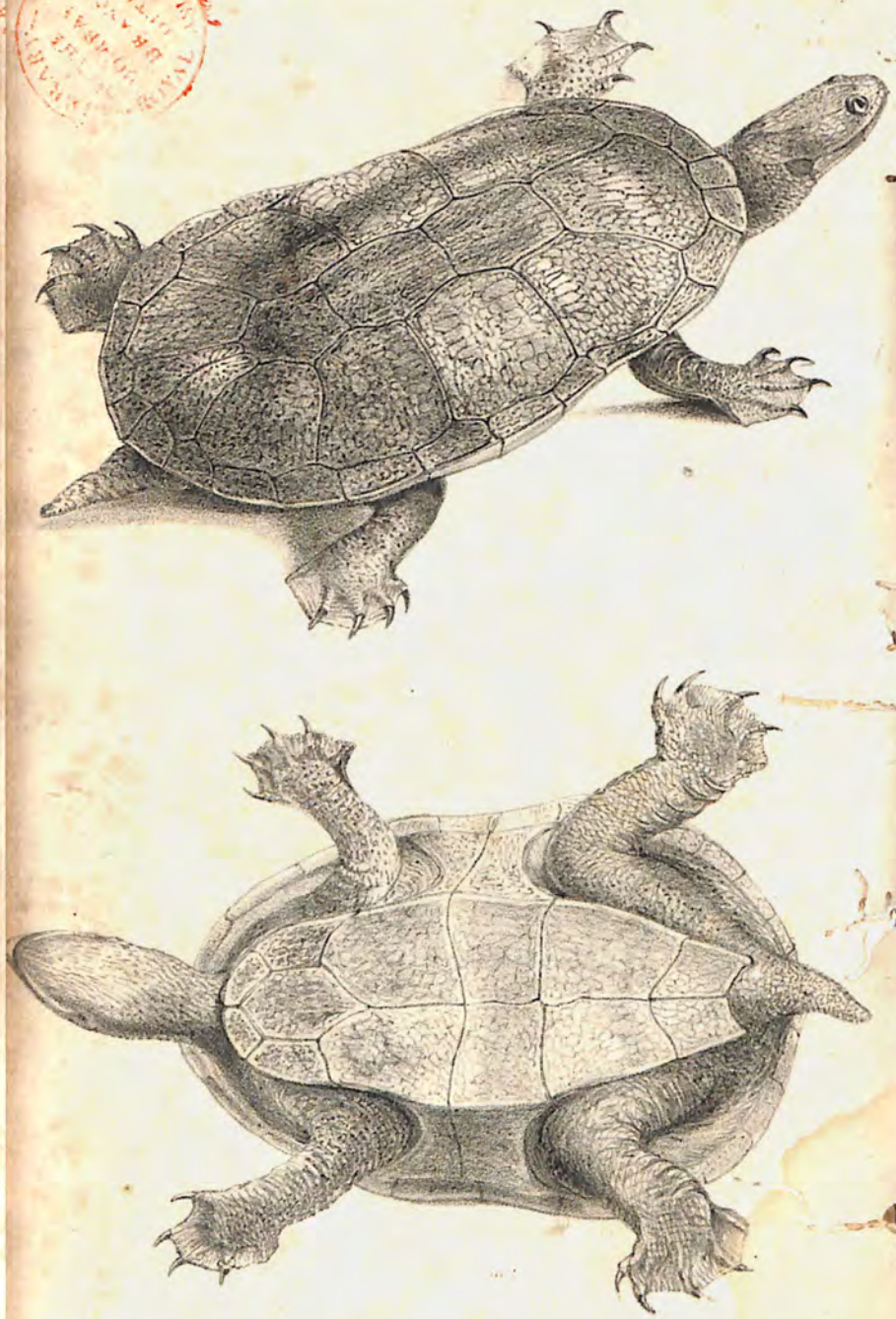
78. *Elaps Lewisii*, Gray.—Olive green, submetallic; edge of the scales blackish; upper lip, chin, and ventral plates greenish-white; head moderate, elongate, depressed; head shields normal; hinder frontal and front of superciliary shield expanded on the sides, and bent down on the cheeks. Nostrils



1. Elaps Gouldii. (Gray)
2. ——— Coronatus. (Schl.)
3. Calamaria diadema (Schl.)
4. Inalis Burtonii. (Gray)



Hydraspis Australis. (Gray)



Chelodina oblonga (Gray)

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in the suture between the two small nasal plates. Loreal plates small oblong; one small front and two smaller posterior oculars. Temples shielded; labial plates moderate; chin shields two pair; middle of the throat shielded, sides scaly. Eyes large, pupil rounded; body elongate, subcylindrical, moderately thick, covered with cross bands of elongated narrow scales. The vertebral series broad, six-sided, long; of the nape, small, like those on the sides; of the tail, broader and more uniform; ventral plates distinctly keeled and erect on the sides. Tail elongate, tapering, with two rows of shields, keeled on the sides.

80. *Hydrus.*—Capt. G. Grey informs me that these snakes coil themselves upon the shore, living on the sea-weed, and that they lay their eggs on the shore. They are often found asleep upon the sea, when they are easily caught, as they cannot sink without first throwing themselves on the back, probably to empty their large vesicular lungs.

83. *Platemys Macquaria.*—This species was originally indicated by Cuvier, from a single specimen brought from the Macquarie River by MM. Lesson and Garnot. It has been doubted if it really is an inhabitant of that country, and might not have been imported from South America, whence all the other species of the genus come, and sold to the French collectors for a native species.

84. *Hydraspis australis*, t. 6.—Body ovate, back dark olive, rather convex, rounded on the middle of the sides, with a narrow reflexed edge, shelving behind with a broad expanded margin; vertebral shields broad, six-sided, last subtriangular; beneath rather convex, yellow, shelving on the sides; the second marginal plate with an angular lobe produced into the suture between the vertebral and first costal plates; claws sharp, black; skin of head and limbs smooth.

Inhab. Western Australia?

The back covered with conferva.

85. *Chelodina longicollis.*—Mr. Gould brought two large specimens of this species, which are much more ovate and convex than Dr. Shaw's specimens. They are 7 inches long, by 6 wide. It may be a particular variety, or they may

become more ovate as they increase in size. The sternal shields (in specimens preserved in brine) are pale yellow, with black edges.

86. *Chelodina oblonga*, t. 7.—Shell oblong, rather contracted in front, with a broad impression on the middle of the back; back olive brown, with irregular anastomosing lines on the shields; beneath reddish-yellow. The marginal plates longer than broad, the second larger than the first and third; and rather angularly produced in the middle of the inner edge, opposite the suture between the first dorsal and first costal plate; the sternum high, flat, strongly and sharply keeled on the sides.

Inhab. Western Australia

This species is at once known from *Chelodina longicollis* by the form of its high, flat sternum, which is strongly keeled on the sides, and by this part being of a uniform reddish colour, without any dark margin to the plates; the hinder part of the sternum is only slightly concavely truncated, and not deeply notched.

It is also known from that old well-known species by its oblong depressed form, and by the form of the marginal plates, and especially from the second and eleventh marginal plates on each side being placed more forwards, so that the centre of their inner edge is opposite the suture of the first and last costal plates with the dorsal ones; instead of their front margin, as is the case with all the specimens of *Chelodina longicollis* I have seen.

This species grows to a large size. Mr. Gould brought a specimen which he gave to Mr. Bell, which is 11 inches long, and the neck is nearly equally long, very thick, and studded with large warts; the head is broad and depressed, covered with a thin skin, like a *Trionyx*, and marked with small thin scales.

92. *Cystignathus dorsalis*.—The palatine teeth in a single large straight line, just behind the inner nostrils; tongue large, slightly nicked behind; the tympanum nearly hid under the skin; gray-brown (in spirits), marbled with dark irregular spots, with a white streak down the middle of the fore-

1. Hyla biocellata. (Gray)
2. ... Adelaidensis (Gray)

head and front of the back; sides pure white, spotted and marbled with black; beneath white; toes elongate, slender, tapering; back part of thighs brown, white speckled.

Inhab. Western Australia. *Mr. Gould.*

This species is very distinct from *C. Peronii* and *C. Georgianus*, the two Australian species described by MM. Dumeril and Bibron. It agrees with the former in the disposition of the palatine teeth.

Helioporus, Gray.—Head short, swollen; eyes large, convex; palatine teeth in a straight interrupted ridge between the two internal nostrils; teeth very small; body swollen; skin of the back minutely granular, of the belly smooth; legs rather short; toes 4·5, short, warty beneath, quite free; the hind wrist with a large, oblong, compressed, internal tubercle; the base of the inner finger with a conical wart, ending in a small acute bony process; tongue large, entire behind.

This genus has many of the characters of *Cystignathus*, but differs from it in being warty and swollen, and in having short toes like a toad.

94. *Helioporus albo punctatus*, t. 1. f. 2.—Lead-coloured (in spirits), with white spots; beneath dirty white, with some small white warts at the angle of the mouth; legs smooth.

Inhab. Western Australia.

103. *Hyla Adelaidensis*, Gray, t. 8, f. 2.—Slender; fore-toes quite free, hinder toes webbed to the last joint; (in spirits) gray-blue, with a series of small oblong tubercles; the sides purple-brown with a white streak from the under side of the eyes to the shoulders; sides of the belly and region of the vent purplish, with small white spots; the hinder side of the thighs purple-brown, with three large oblong white spots; belly and under side of thighs granular; chin white, brownish dotted; palatine teeth in two roundish groups between the internal nostrils.

Inhab. Western Australia.

104. *Hyla binoculata*, Gray, t. 8, f. 1.—Slender; fore-toes quite free; hinder toes webbed to the last joint. Grayish white, (in spirits,) with a series of very small, indistinct, oblong tuber-

cles, with a dark streak from the nostrils to the shoulder, enclosing the eyes, and a white streak below it from the under side of the eye; sides purplish, with small white spots; back of the thighs purple, with two yellow spots; belly and under side of thighs whitish, granular.

Var. 1. Back of thighs with one or two additional yellow spots.

Var. 2. Back bluish gray; back of the thighs with six or seven small subequal yellow spots.

Inhab. Western Australia.

Uperoleia, Gray.—Head large; palate quite toothless; upper jaw with small close teeth; tympanum hid under the skin; toes of the fore and hind feet elongate, slender, quite free; ankle with a roundish external and a small conical inner tubercle; tongue small, oblong, roundish, and entire behind.

This genus is most nearly allied to *Leiuperus* of MM. Dumeril and Bibron, with which it agrees in having no teeth on the palate, but it differs from it in the tympanum being quite hid.

The internal nostrils are some distance in front of the cross-ridge on which the palatine teeth are generally placed.

105. *Uperoleia marmorata.*—Black and green marbled, leaving a triangular greenish spot on the forehead, beneath lead-colour.

Inhab. Western Australia.

Dr. Tschudi has formed a genus under the name of *Crinia*, which appears by his characters to be nearly related to the above; but MM. Dumeril and Bibron (Erp. Gén. viii. 416,) observe that the specimens he described have two very small groups of teeth on the vomer.

107. *Breviceps Gouldii*, t. 1, f. 1.—Smooth, with a few scattered low tubercles; gray-brown (in spirits), yellowish beneath.

Inhab. Western Australia.

This animal has all the external appearance and character,

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Pl. 1.

1 Breviceps Heliogabali (Gray.)
2. Heleioporus ahbo-guttatus (Gray.)
2 *a.* fore foot. 2 *b.* hind foot.

Printed by Lefevre, Newman & Co

as far as they are given in MM. Dumeril and Bibron's work, of the *Brèviceps gibbosus* of the Cape of Good Hope, except that it has not the yellow dorsal band, and the back is scarcely to be designated as granular. It is the second species of the genus, and only the second Toad found in Australia.

EXPLANATION OF THE PLATES.

Tab. 1. f. 1. Breviceps Gouldii, *p.* 448.
f. 2. Helioporus albo punctatus, *p.* 447.
— 2. Moloch horridus, *p.* 441.
— 3. f. 1. Lialis Burtonii, *p.* 437.
f. 2. Soridia lineata, *p.* 438.
— 4. f. 1. Ronia catenulata, *p.* 437.
f. 2. Aprasia pulchella, *p.* 438.
f. 3. Delma Fraseri, *p.* 438.

Tab. 5. f. 1. Elaps Gouldii, *p.* 444.
f. 2. —— coronatus p. 432.
f. 3. Calamaria diadema, *p.* 443.
f. 4. Lialis Burtonii, *p.* 437.
— 6. Hydraspis Australis, *p.* 445.
— 7. Chelodina oblonga, *p.* 445.
— 8. f. 1. Hyla binoculata, *p.* 447.
f. 2. —— adelaidensis, *p.* 447.

(F.)

Notes on some Insects from King George's Sound, collected and presented to the British Museum by CAPTAIN GEORGE GREY, *by* ADAM WHITE, Esq. *British Museum, in a letter addressed to the author.*

DEAR SIR,

FABRICIUS was the first, or among the earliest Entomologists, who described the Annulose animals of New Holland, New Zealand, and the Pacific Islands. At the time he published his Systema Entomologiæ (1775), these parts of the world had been visited by but few persons, and I believe that all the species he described as coming from them, he found in the collection which was made by Sir Joseph Banks and Dr. Solander, on their well-known voyage with Captain Cook; that collection was presented to the Linnæan Society of London. Several of the original specimens have been figured in the works of Olivier and Donovan, and it is perhaps unnecessary to say that modern Entomologists often refer to these specimens as the typical examples. As far as I am aware, the next important addition to the Entomology of New Holland was made by Dr. Schreibers of Vienna,* which was followed by that of

* Linn. Trans. VI. pp. 185-206, tab. 19-21. (1802.) "Descriptions of some Singular Coleopterous Insects, by Charles Schreibers, M.D., Deputy Professor of Natural History in the University of Vienna."—Lucanus æneus, (Lamprima Latr.) Scarabæus proboscideus, (Elephastomus Macleay).—Cetonia Philipsii, (Schizorhina Kirby) Silpha lachrymosa, (Ptomaphila Hope).—Clerus fasciculatus. Prionus lepidopterus, (Tragocerus, Dej.)—Cerambix Giraffa (Gnoma) Cer. Fichtelii (Enicodes G. R. Gray) Scarites Schrœtteri (Hyperion Lap.) all new, and a singular Brasilian genus, Scarabæus dytiscoides, (near Anamnesis, Vigors, and supposed to be the Eucranium arachnoides, Dej. Cat. p. 150, ed. 1837.) are all admirably described and figured here.

Mr. Marsham.* All the specimens, described by these entomologists, were most probably collected by travellers touching only at certain points on the coast.

As New Holland became colonized, and settlements increased, Entomology was not altogether neglected, for we find *a resident*, John W. Lewin, A.L.S., of Paramatta, New South Wales, in 1805, publishing an elegant and curious quarto volume of plates, in which he describes many species of crepuscular and nocturnal Lepidoptera, in most cases figuring the insects in all their stages; it is highly to be regretted that this interesting work was not continued, and it is to be feared that want of encouragement alone prevented the industrious and acute author from persevering in the design of his work, which the title he gave it† shews he intended to have made of a general nature on the subject. The accounts of the habits of Cryptophasa and Agarista are peculiarly interesting, and it is much to be wished that some of the many entomologists now in New Holland and the islands of the Pacific ocean, would publish similar notes (however short) on the habits, &c. of the insects they may find.

Dr. Robert Brown, when on Flinders' voyage, collected many interesting insects, which were described by Kirby in the 12th volume of the Linnean Transactions.‡

* Linnean Transactions, IX. pp. 283-295, tab. 24-25. (1808.) "Description of Notoclea, a new genus of Coleopterous Insects from New Holland, by Thomas Marsham, Esq. Tr. L.S." This contains 20 species, some of which, however, had been previously described by Olivier under Paropsis, the appellation now universally applied to this "convex-backed" genus. The Rev. Wm. Kirby, in a note, added the more latent characters.

† "Prodromus, &c.—Natural History of Lepidopt. Insects of New South Wales, collected, engraved, and faithfully painted after nature by J. W. L., &c."—London, 1805, 4to.

‡ Vol. 12, (1818), pp. 454-478.—"A description of several new species of Insects collected in New Holland by Robert Brown, Esq., F.R.S. &c., by

Several specimens were deposited by this celebrated botanist in the British Museum. We find Dr. Leach commencing the description of New Holland insects in his Zoological Miscellany; and Macleay in his Horæ Entomologicæ described many curious Lamellicornes. Since that time the communication with the great South Continent has been so uninterrupted that collections have been continually coming to Europe, and scarcely a ship now arrives without some additions being made to this branch of science.

The French voyages of discovery under Freycinet,* Duperrey, D'Urville, and Laplace, have contributed very much to extend our knowledge of the Natural History of the

the Rev. W. Kirby, M.A., F.R.S. &c."—33 species described, 13 figured on tab. 23.—Mr. Kirby, in his century of Insects published in the same volume, described 17 New Holland species, and in the same celebrated paper founded four new genera upon Australasian Insects, Adelium, Rhinotia, Eurhinus and Rhinaria. He would have described other genera but for his fear of interfering with Germar's labours on the Curculionidæ.

N.B.—Strongylium chalconotum is from Brazil and not from Australasia as indicated.

* (Voyage autour du monde, &c. sur les corvettes de S. M. l'Uranie et la Physicienne, 1817-1820, Paris, 1824, Partie Zool.) Freycinet's Voyage, but for the lamentable shipwreck of one of his vessels, would have added much to our acquaintance with the Natural History of the places visited. Messrs. Quoy and Gaymard, "Medecins de l'expedition," published the Zoological part of their notes. They refer with regret to the disastrous accident which deprived them of large collections of Insects, made more particularly in the environs of Port Jackson. They describe and figure but one insect from New Holland (Curculio lemniscatus from Sharks Bay), a spider from Port Jackson (Aranea notacantha *Quoy*, Dolophones notacantha *Walck.* Apt. I. 383,) in which the brown callosities at the end of the cylindrical abdomen were taken for eyes, a position rectified by Walckenaer as above, and by Kirby in his Bridgewater Treatise, where he gives a copy of the French figure of this singular spider—Two Crustacea, one (Ocypode convexus) from Dirk Hatterick's and the other (Pagurus clibanarius) from Sharks Bay, are all the Annulose animals described or figured as coming from New Holland, from the pitiable circumstance above alluded to.

Southern islands, as the publication of the History of the Voyages of the Uranie, Coquille, Astrolabe, and Favorite, amply testify; we are more especially indebted to Admiral D'Urville, who seems to unite the seemingly incompatible duties of commander of an expedition, with an enthusiastic love of and search after insects. M. Guerin-Meneville published the Annulose animals of the Voyage de la Coquille, in which New Holland genera and species take a prominent place. Dr. Boisduval described those collected on the expedition of the Astrolabe, he also published the first Fauna Entomologica of New Holland and the Pacific; in his two volumes he gives a synoptical description of all the species he met with in the Parisian collections, indicating also such as he found in books whether he had seen the specimens or not. More detailed descriptions are looked for on some future occasion by the entomologists of this country, from the learned and talented author of so many well known works.

The figures and descriptions of Guerin, though fewer in number, are more detailed than those of Dr. Boisduval, who was much limited for space.

It would take up too much time to give a tithe of the names of the entomologists who have described New Holland insects,* as nearly every working student of insects abroad and at home, has added to the list. MM. Audouin, Blanchard, and Boisduval will shortly publish descriptions of the insects, &c. collected on D'Urville's last voyage. Latreille, Dejean, Schœnherr and Klug, must be specially particularized; Gory, Percheron, Chevrolat, Aubé, Serville, Reiche, Spinola, Fischer, and Mannerheim, have all more

* The entomologist who would attempt to do this must give a Universal Entomological Bibliography, as scarcely a Journal or volume of Transactions of any Scientific Society appears without containing fewer or more species from the great Australasian Continent and its islands.

or less added to our acquaintance with the species. Many New Holland Arachnida, and Pacific ocean Crustacea, have been described in the well-known works of the Baron Walckenaer and Dr. Milne Edwards. In this country, Kirby, Hope, Curtis, G. R. Gray, Waterhouse, Shuckard, Newman and Westwood, have been the principal scientific men who have attended to species of annulosa. Bennett, Mr. Surgeon Hunter, Darwin and Major Mitchell, when opportunities offered, collected many species, and neglected not the subject of their habits; the last-mentioned having also described (specifically) one or two species in his interesting work. Macleay's Appendix to Capt. King's voyage* is universally known. Curtis and Haliday have published and are engaged in publishing the description of Annulosa, collected by Capt. King, while those collected by Mr. Darwin on the voyage of the Beagle, have been entrusted to Mr. Waterhouse, who has published descriptions of some in the Entomological Society's Transactions, and in the Annals of Natural History. Hope's papers in the Zoological Transactions, and the Coleopterist's Manual are well known, as are Mr. Newman's, in different Magazines and Annals. We rejoice to see in a late number of a small periodical

* King (Capt. Philip P., R.N., F.R.S. &c.) Narrative of a Survey of the Intertropical and Western Coasts of Australia, performed between the years 1818 and 1822, 2 vols. Lond. 1827. Appendix, "Catalogue of Insects collected by Capt. King, R.N., 192 species of Annulosa, 188 Insects, 4 Arachnida," pp. 438-469; "eighty-one of the species are new." In this paper, Macleay institutes a Curculionidous genus near Phalidura, which he names Hybauchenia, the type being *H. nodulosa.* Carpophagus, type C. Banksiæ, "would probably with Linnæus have been a Bruchus."—*Megamerus* "has an affinity to Sagra, but differs from that genus in having setiform antennæ, porrect mandibles, and securiform palpi, its habit is also totally different, and more like that of some of those insects which belong to the heterogeneous magazine called *Prionus*; it is undoubtedly the most singular and novel form in Capt. King's collection."—Type, M. Kingii.

sheet exclusively devoted to Entomology,* and edited by this gentleman, a letter from Mr. Davis, containing some interesting information regarding the insects of Adelaide; and in the same periodical there are many New Holland insects described. Much may be expected from Messrs. Macleay and Swainson, both at present in the South Sea islands, and it is to be hoped that in a short time the fruits of their researches will be before the public. Mr. Gould collected many insects on his Ornithological expedition to New Holland, descriptions of which from the pen of the Rev. F. W. Hope, may shortly be looked for.

The N. W. coast of New Holland has been but little investigated, and yet in that quarter the late Allan Cunningham, gathered a rich harvest of rare and unknown species; but it would take too much space to tell what parts have not been searched for insects, suffice it to say that the Swan River settlement, Kangaroo and Melville islands, Adelaide, Sidney, and Hobart Town, seem all peculiarly rich in species, and what may we not expect from New Zealand, from the samples already given of its entomology by Fabricius and Shuckard, not to mention others who have described species from that locality.

We yet hope to see a general work on the subject, similar to the truly national work on the Birds and Kangaroos at present publishing by Mr. Gould. Mr. G. R. Gray commenced such a work in quarto, and the beautiful number illustrated by the late Charles Curtis, containing species of Phasmidæ, it is to be hoped will not be left single.† I have

* "The Entomologist, conducted by Edward Newman."—*London, Van Voorst, in Monthly Numbers.*

† I see in Laporte and Gory's Histoire Naturelle et Iconographie des Coleopteres, a work on Australian Insects, by the Rev. Frederick W. Hope, often quoted as "Synopsis of the Insects of New Holland," but this must be privately printed, as I have never seen it or heard of it elsewhere.

only room to add, that owing to many other occupations, I can at present give only a very imperfect list of the species you have presented to the National Museum, which were all collected by you on the shores of King George's Sound.

A. W.

COLEOPTERA.

CARENUM, *Bon.*

Carenum perplexum.

I think this may be the Scarites cyaneus Fabr. described from the Banksian Cabinet in 1775 (*Syst. Ent.* p. 249, g. 68, sp. 2.) It differs however from his description in the appendiculated thorax (the sides of which are rounded) being abruptly cut off behind, and in having the somewhat dilated margin there, slightly emarginate. The general surface of the thorax is not so bright in colour as the elytra, it has more of a purple reflection; a dark greenish hue prevails over the elytra, the anterior edge of each, having, towards the margin, a slight bend upwards, which forms a kind of tooth, projecting slightly over the somewhat dilated margin of the elytra, along the margin of these are at least eight points, at first seemingly impressed, but when more particularly examined, they appear to be raised and to have an impressed line round each of them. The head is black, the antennæ and palpi piceous, the third joint in the former is longer than the second or third, the terminal joints are (more especially) furnished with pitchy hairs.—Long. lin. 8.

Hab. King George's Sound. Capt. George Grey.

The genus Carenum was founded by Fr. A. Bonelli in the second part of his "Observations Entomologiques," read the 3d May, 1813, and published in the Turin Transactions for

1813,* upon a specimen contained in the Paris Museum of Natural History, which he regarded as the Scarites cyaneus of Fabricius figured by Olivier. Guerin† has shewn that the "Arnidius marginatus Leach" of the letter-press to the "Voyage de l'Astrolabe, p. 33," is synonymous with Carenum cyaneum of Bonelli, as he has seen the two specimens, the former of which is in Dupont's collection. M. Brullé‡ observes well that the Carenum cyaneum of Bonelli must be different from the Scarites cyaneus of Fabricius, as both these authors speak of its being blue (or deep blackish green) over the whole upper surface, while in the C. cyaneum, the blue is confined to the margin of the elytra; besides Olivier expressly states that the Scarites cyaneus is smaller than the Scarites subterraneus, which will not at all suit the original specimen, from which the learned Bonelli derived his generic character. In the British Museum is the original specimen of Arnidius marginatus (catalogued by Dr. Leach) presented by J. Huey, Esq., and it is very different both in size and in colour from the descriptions of Fabricius and Olivier, and the figure of the latter,§ all derived from the original specimen formerly contained in the Banksian collection. Dr. Boisduval's concise description (op. cit. p. 2, p. 23), answers the specimen so named by Leach.

If the figure of Carenum cyaneum, given by Audouin and Brullé in their Work (tome V. pl. 2. f. 6) be correctly drawn, it differs very considerably from Leach's specimens of Arnidius, which is a broader insect.

I have not been able to see the original specimen of the Scarites cyaneus, so that in all probability it has been destroyed; it is much to be desired that accurate figures and descriptions were made and published of the original specimens described

* Memoires de l'Academie Imp. des Sciences, &c. p. 479.

† "Crust. Arachn. et Ins." of the voyage of the Coquille, avant-propos, p. vii.

‡ Hist. Nat. des Ins. par MM. Audouin and Brullé, V. p. 64.

§ Coleopt. III. No. 36, l. 2, f. 17.

by Linnæus and Fabricius, which exist in the Banksian and Smithian Cabinets in the possession of the Linnean Society, as well as those to be found in the Hunterian and British Museums. The genus Eutoma of Newman,* seems to me to be synonymous with Carenum, but different from Arnidius of Leach.

CHLÆNIUS, *Bon.*

Chlænius Greyianus, n. sp.

C. supra læte viridi-smaragdinus, elytris costis tribus, suturâque elevatis cupreis, lævibus, interstitiis lævibus; margine utrâque lineâ punctorum impressorum instructâ; subtus piceo-niger, antennis pedibusque piceo-nigris.

I have named this beautiful species after the Governor of South Australia; in the system it would come close to the European Chlænius quadrisulcatus, *Illiger.*—(Dej. & Boisd. Iconogr. et Hist. Nat. des Coleopt. d'Europe, ii. p. 185, pl. 94, f. 3) which it seems singularly to represent.

It is, however, rather a larger insect, and of a brighter green above than any specimens of the other species which I have seen, there is less of the coppery tinge about its upper surface. The thorax is much narrower, the lateral margins can hardly be called depressed, and they are not at all longitudinally scooped out there, as they are in the C. quadrisulcatus. The elytra are very distinctly sinuated towards the extremity, and the three elevated ribs are smooth and of a coppery bronze colour, with the intervening spaces smooth (at least not granulated as in the C. quadrisulcatus) and have two longitudinal lines of impressed points, one on each side of the smooth interval.

This short description may suffice to distinguish this beautiful species.

Hab. King George's Sound, *Capt. George Grey.* (*Brit. Museum.*)

* Ent. Mag. V. p. 170 (Eu. tinctilatus.)

Staphylinus erythrocephalus, Fabr.

Syst. Ent. 265-6 (1775) *Syst. Eleuth.* II. 593. 19.

Oliv. Ent. III. No. 42, sp. 9, p. 12, pl. 2, fig. 9.

Erichs. Genera et species Staphyl. sp. 8, p. 351 (1840.)

Hab. Australia (King George's Sound), *Capt. George Grey*, *Mus. Brit.*

The specimens brought home by Capt. Grey, seem to me identical with the above. Fabricius describes the thorax (truncated in front and rounded behind) as having the anterior margin rufous in the middle, it being wholly of a deep shining black, and as Olivier (l. c.) remarks, the neck or narrowed collar (" qui joint la tête au corcelet") is rufous yellow as is the squareish transverse head with a black spot on the crown. The scutellum and elytra are minutely punctured or chagrined, and hairy, (except a small smooth oblong space on the shoulder of the latter), and are black with a violet tinge; in one specimen the elytra have scarcely any of the blue tinge, and the spot on the shoulder is of a ferruginous hue; the wings are violaceous. Dr. Leach had regarded this as a distinct subgenus, but as the name he had given it is pre-occupied in Botany, and has not been published with or without characters, as far as I am aware, I have not given it.

Cryptodus, *Macleay.*

C. variolosus, Burmeister (Westw. Monogr. ined.)

Smaller than Mr. Macleay's species and of a pitchy brown, it is less depressed; the *head* is squarer and not so broad, the two tubercles are more prominent, the *mentum* is deeply emarginate: *antennæ* nine-jointed; basal joint dilated, *prothorax* not so transverse, much more closely punctured: the *elytra* are scarcely dilated behind, shorter, and are covered with exceeding minute punctures in addition to the larger ones.

Inh. King George's Sound, *Capt. Geo. Grey*. (*Brit. Mus.*)

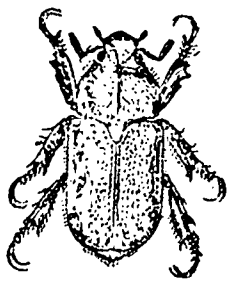
Mr. Westwood informed me that Professor Burmeister had sent him a description of this species under the above-men-

tioned name; the characters are the principal of those which will appear in Mr. Westwood's elaborate memoir. I had written a description of this species and assigned a name to it, which, however, I withdraw. There are more than two species of this curious genus, first published in the *Horæ Entomologicæ*.

BRACHYSTERNUS, *Guerin.* (s. g. Epichrysus.)

B.? (E.) Lamprimoides, n. sp. (1)

Viridi aureus, thorace corporeque subtus tomentosis.

(1) 

Yellowish metallic green, legs darker. The head is somewhat square, the transverse suture being rather indistinct; the margin of the clypeus is distinctly reflexed. Antennæ dark brown, ten-jointed; 1st joint longest, thickened at the end, with ferruginous hairs behind; 2nd rounded, thin; 3rd, 4th and 5th, with the separating lines very indistinct, those before the 3 lamellated joints short, transverse. Maxillary palpi with the terminal joint dilated, rather blunt at the tip, depressed above, and hollowed out at its base. Legs rather thick, the outer of the two tarsal claws of the third pair of legs, cleft at the end, anterior tibiæ externally sub-tridentate. Thorax with the sides somewhat angulated and narrowly margined, rounded behind, but the sides of the posterior margin are straight, the surface is minutely punctured and covered with brown hairs, the sternum of the mesothorax is without a spine, or projecting angle; elytra in some specimens of a rich, lively, metallic, yellowish green, in other

coppery green with the suture and margin dark green, the surface chagreened and punctured. Under side of the body and legs dark green, the former covered with ash-grey pubescence, or rather longish soft hairs.

This insect seems to be one of those links which connect such genera as Anoplognathus, Amblyterus and Brachysternus, and it is very difficult to say to which of these genera it is most allied. Professor Burmeister has begun to eradicate the Phyllophagous genera of Beetles, and from his deep knowledge of Entomology, and the particular acquaintance which he has with the principles of general Zoology, as well as the thorough manner in which he means to go through all the species, much light may soon be expected to be thrown on the subject; how true is Darwin's remark, made in speaking of a somewhat anomalous bird, "this, from its varied relations, although at present offering only difficulties to the systematic Naturalist, ultimately may assist in revealing the grand scheme, common to the present and past ages, on which organized beings have been created."—(*Jour. & Remarks, Voyage of Beagle*, iii. p. 112.)

BIPHYLLOCERA, g. n.

Antennæ (seemingly) nine-jointed, the first joint long, much thickened at the end, and furnished with several stiff hairs, the five last are lamelliform, the lamellæ in the male long, and pinnated on one side; labium deeply grooved in the middle, notched at the tip; palpi with the terminal joints longest, sub-cylindrical; head moderate; clypeus separated by a distinct line, basal part slightly hollowed out, as is the head between the eyes; thorax short; elytra elongate, somewhat rounded on the lateral edge, truncated at the end; legs slender; tibiæ of first pair anteriorly sub-tridentate, tibiæ of second and third pairs with many spines, claws of posterior tarsi entire, joints of tarsi, slender, elongate.

In the system this would come at no great distance from the

genus Serica, the compound lamellated joints are, I believe, the first noticed amongst Phyllophagous Coleoptera.

Biphyllocera Kirbyana, sp. n. (2 fig. 1. a. & b.)

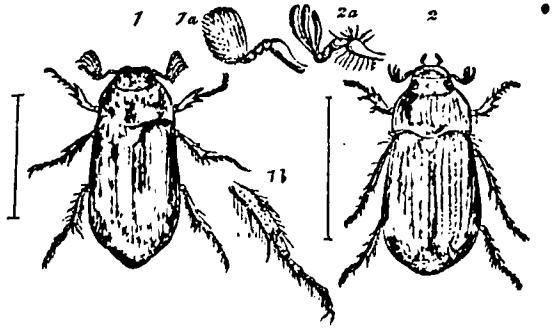
Piceo-brunnea, subtus piloso-fulvescens, thoracis margine flavescente, dorso hirtello; elytris 9 (saltem) lineis longitudinalibus impressis, interstitiis transverse substriolatis quasi squamulatis.

Shining, more especially on the head and clypeus, the crown of the head very smooth, the space between the eyes with impressed punctures, the clypeus slightly notched in front; antennæ pale-ferruginous; thorax with short rust-coloured hairs, and the lateral margin slightly reflexed and paler than the dorsal part, which is covered with short striolæ, giving a squamulate appearance to it; when narrowly examined, just above the rather large and bluntish scutellum, there are some distinct scattered punctures; thorax beneath covered with fulvous hairs.

Hab. King George's Sound, *Captain George Grey.*

There are two more or less injured specimens of this species in the collection of the British Museum. In the same collection, from the same locality, are two specimens of what I regarded as the females of the B. Kirbyana; they are larger and of a pale brown; one of these is figured in the accompanying wood-cut (fig. 2.) In the lamellæ of the antennæ of the two specimens there is considerable difference, so that probably there may be a second species of Biphyllocera. I have given it the name of B. Fabriciana.

(2)



Lamprima Micardi, Reiche in Guerin's Rev. Zool. 1841, No. 2, p. 51.
Hab. King George's Sound, *Capt. Geo. Grey.*

Porrostoma rufipenne, (Fabr.) Laporte Hist. des Anim. Art.
Lycus rufipennis, Fabr. Syst. El. ii. p. 114-20.
Hab. King George's Sound.

Porrostoma serraticorne (Fabr.) Lap.
Lycus serraticornis, Fabr. Syst. El. ii. iii. p. 6.
Hab. King George's Sound.

Saprinus cyaneus (Fabr.) Erichson Uebers. der Hister. in Klug's Jahrb. d. Insectenk. i. p. 178.
Hister. cyaneus Fabr. Syst. Ent. p. 52. 7. 3. Syst. El. i. 86. 13. Oliv. Ent. i. no. 8, pl. iii. f. 17.
Hab. King George's Sound, *Capt. Geo. Grey.*

Stigmodera Roei, Hope, "Synopsis of Austr. Insects, p. 2, no. 15."
Buprestis Dejeaniana, Boisduval Voyage de l'Astrolabe, Ent. ii. p. 63, pl. 6, f. 6.
Stigmodera cancellata, Lap. and Gory (nec Donovan) Hist. Nat. &c. des Col. pl. 2, f. 6.
Hab. King George's Sound, *Capt Geo. Grey.*

Donovan's B. cancellata is surely a distinct species, the serrated margins of the elytra and other characters would separate it. I have not seen the work of the Rev. F. Hope, referred to by Messrs. Gory and Laporte, so that I am not aware whether the specific name Roei or Dejeaniana had the priority in publication.

Stigmodera iospilota, Hope, var. "Syn. &c." Lap. and Gory, op. c. pl. 7, f. 39.
Hab. King George's Sound, *Capt George Grey.*

Diphucrania scabiosa, Gory ? Boisd. Voy. de l'Astrol.
Hab. King George's Sound, *Capt. Geo. Grey.*

Ptomaphila lacrymosa (Schreib) Hope. The Coleopterist's Manual, pt. 3, p. 150.

Silpha lacrymosa, Schreibers Linn. Trans. vi. p. 194, tab. 20, fig. 5.

Hab. King George's Sound, *Capt. George Grey.*

Belus suturalis, Boisd. Voy. de l'Astrolabe, Ent. ii. p. 304, pl. 7. fig. 20.

Hab. King George's Sound, *Capt. Geo. Grey.*

Catasarcus rufipes (Hope), Schoenh. Gen. and Spec. Curc. V. gen. 109, sp. 2, p. 814.

Cneorhinus stigmatipennis, Boisd. Voy. Astrol. ii. p. 349.

Hab. King George's Sound.

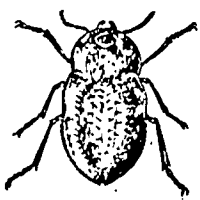
Helæus echidna, n. s. (3)

H. elytris triseriatim spinosis.

The dilated sides of thorax meeting in front, and projecting beyond head, a short spine in the middle near the hind margin. Elytra with two rows of spines close to the suture, and another close to the edge, where the dilated part commences: the central rows of spines are not continued to the tip, the spines being placed irregularly; they are also much larger than those of the side row. General surface of thorax and elytra very smooth, shining, the dilated parts of thorax and elytra with the surface somewhat undulated.

Inh. King George's Sound, *Capt. Grey.*

(3)



Emcephalus, Kirby Zool. Journal, iii. p. 524.

Emcephalus (Cilibe) tricostellus, n. sp.

Much larger than the E. gibbosus, of a dirty brown, glossed, the wide margin of elytra flat, the extreme edge somewhat

turned up, the sides of the elytra at base are somewhat strait, but the edge soon gradually gets rounded off towards tip. Towards the suture the elytron is raised so as to form a very prominent keel down the back of elytra; the general surface of the elytra is somewhat pustulose, and there are three slightly elevated, longitudinal lines, nearly meeting (but indistinctly) behind on the convex part of each elytron. The middle of thorax is more shining than the other parts, and seems to have two impressions on the back on each side of a longitudinal, elevated dorsal line.

King George's Sound, *Capt. George Grey.*

This species may belong to the genus "Cilibe Kirby," shortly alluded to by Dr. Boisduval in the Entomological part of the Voyage of the Astrolabe.

Hesthesis cingulatus (Kirby) Newman. Annals of Natural History, v. p. 17.

Malorchus cingulatus, Kirby, Linn. Trans. xii. p. 472.

Hab. King George's Sound, *Capt. George Grey.*

Phoracantha semipunctata (Fabr.) Newman, Annals of Nat. Hist. v. p. 19.

Stenocorus semipunctatus, Fabr. Syst. Ent. 180, 8. Syst. El. ii. 306, 8. Donovan, Epitome, &c. fig.

Hab. King George's Sound, *Capt. George Grey.*

Hebecerus marginicollis, Dej.

Hab. King George's Sound, *Capt. George Grey.*

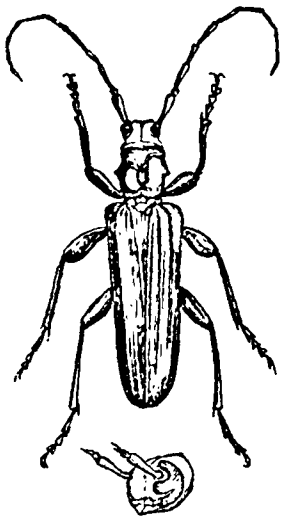
Bardistus cibarius, Newman, Entomologist, March, 1841, No. V. p. 80. (4)

Of a yellowish bay colour, the head, thorax, and basal part of the three first joints of the antennæ darker; the elytra soft, margined, with three parallel raised lines, not reaching the tip, the outer is on the side and not so distinct as the other two; there is also a short one running from the base of the elytron near the scutellum, and soon forming a margin to the suture. The antennæ are slightly hairy outside. (In

the accompanying figure they are represented much too short.) There are a few short hairs at the rounded tip of the elytra.

Hab. King George's Sound, where it seems to be very abundant, forming a favourite article of food with the natives who call it *Bardé;* it is eaten in its imago as well as its larva and pupa states. "It is found in the Xanthorhea. The grubs are white, have a fragrant aromatic flavour, and form a favourite article of food amongst the natives. They are eaten either raw or roasted, and frequently form a sort of dessert after native repasts. The presence of these grubs in a grass-tree is thus ascertained. If the top of one of these trees is observed to be dead, the natives give it a few sharp kicks with their feet, when, if it contains any *Bardé*, it begins to give way; if this takes place, they push it over, and breaking the tree in pieces with their hammers, extract the Bardé."—

(4)



Capt. Grey's MS.

Paropsis, Oliv.

There are several beautiful species of this genus found at King George's Sound, where they seem to take the place of the Tortoise beetles (Cassididæ). When alive, they have, like many of the Cassidæ, the most brilliant lustre, their resplendent colours disappearing soon after death.

Coccinella Tongataboœ, Boisd. Voyage de l'Astrol. Ent. it. p. 595, pl. 8, fig. 24.

Hab. King George's Sound, *Capt. George Grey.*

ORTHOPTERA.

Blatta subverrucosa, n. sp.

Apterous, oval; thorax in front semicircular, shrouding the head; posterior angle sharp, rounded behind, the frontal edge bent slightly back, and yellowish; the upper surface brown, rather obscure, the surface irregularly raised, below deep shining pitchy brown. Abdomen yellowish brown, above sprinkled with dark brown, the edges of each segment with several small wartlike prominences; two first segments being also shagreened at the sides, beneath pitchy brown, segments at the base black with green reflections; the femora are pitchy brown; the tibiæ pale yellowish with black spines; the tarsi of a deeper yellow; head dark brown, the trophi and a narrow line on the cheeks yellowish; antennæ somewhat ferruginous.

Hab. King George's Sound, *Capt. George Grey.*

A large apterous species.

Mantis latistylus, Serville, var. Orthopt. (Suites de Buffon) p. 179.

Hab. King George's Sound, *Capt. George Grey.*

Mantis rubrocoxata, Serville? Orthopt. p. 203.

Hab. King George's Sound, *Capt. George Grey.*

Acheta? marginipennis, n. sp.

Thorax black with a yellow line above; head as wide as the thorax, with a blunted projection in front between the antennæ, which are very long and situated in a groove in front of the eyes, and have their basal joint very large. No ocelli visible. Thorax wider than long, somewhat narrower in front than behind. Hemelytra very transparent, longer than the abdomen, lying flat upon one another, the outer margin bent down; the horizontal portion has many irregular nerves; there are two longitudinal nerves at the

angle formed by the bent down outer margin, which extend from base almost to the tip, the spaces between these nerves being of a yellowish colour, the general colour greyish, there are several oblique parallel veins on the bent down margin; wings very short; posterior legs very long; femora much thickened, brown, at the base very pale; anal appendages very long and hairy. Somewhat allied to the Acheta arachnoides of Westwood, figured in the Naturalist's Library, Introd. to Entomology, vol. i. pl. 6.

Hab. King George's Sound, *Capt. George Grey.*

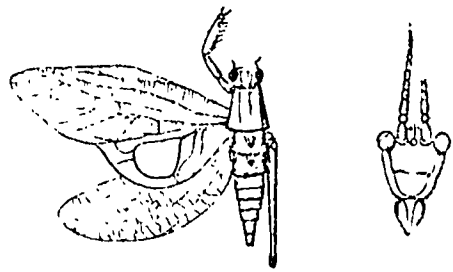
Tympanophora pellucida, n. sp. (5)

Antennæ very long, arising from between the eyes, labrum heartshaped, eyes very large, prominent; ocelli 3, the first the largest, situated between the antennæ, the two others being placed on the sides of a slight groove behind them. Prothorax widest behind, in front not so wide as the head; abdomen small, two of the segments on the back with projecting knobs; anal appendages in the male short cylindrical, slightly hooked inwardly, furnished at the end with two teeth, the surface is rough with short bristly hairs. The elytra are much longer than the wing, which again are at least twice the length of the abdomen; the first and second pair of legs are rather stout, the tibiæ having two rows of strong spines on the underside; the hind legs are long and slender, the under surface of the tibiæ being but slightly denticulated. The head is green, the front inclining to yellow, the crown is reddish brown, eyes green, ocelli yellow, two basal joints of antennæ green, the remainder rust coloured; protnorax green, brown behind, with a broadish line of same colour down the middle; body rusty green, each segment with a dusky ring; elytra pale green with few longitudinal nerves, but many cross ones; wings of a very pale green; anterior legs of a pale brown, femora of second and third pair green; the tibiæ pale brown, the tarsi and joints darker.

Hab. King George's Sound.

This genus is not far removed from *Æcanthus* Serville; when the wings are closed it somewhat resembles a species of the African genus *Pneumora;* (the figure should be reversed.)

(5)



Saga denticulata, n. sp.

Head yellowish green with a brownish tint; the cheeks below the eyes and an irregular mark above the clypeus brownish in some specimens; labrum yellow, in some at the base brown; mandibles pale at base, succeeded by a reddish brown hue, the cutting edges being black and shining; antennæ lower half green, terminal portion brownish green; prothorax without transverse grooves, the surface with minute wart-like prominences; elytra (in male) pale green with darker reticulations, the inner edge with a rosy hue; abdomen of a dark dull green above, beneath pale; legs green, changing into yellowish and brownish; the two rows of spines on the underside of the femora and tibiæ short and blackish; anal appendages in the male knife-shaped, with a broad tooth at base. The ovipositor of female has the edges quite smooth beneath.

This species is but half the size of the Saga serrata.

Inh. King George's Sound.

This species belongs to Serville's second division, or may possibly form a third, as in the males there exist rudiments of wings. Each of the elytra has a clear space like a tympanum; the upper part of the prothorax is smooth, the sides and

posterior part are very slightly bent back, the last segment of abdomen notched at the end.

Tropinotus cinnamomeus, Serville Orthopt. p. 620.
Gryllus Australasiæ, Leach Zool. Misc. i. p. 56, tab. 24?
Hab. King George's Sound.

Calliptamus carbonarius, Serville Orthopt. p. 691.
Hab. King George's Sound, *Captain George Grey*.

Calliptamus brunneus, n. sp.

Head smooth, of a light brown; antennæ somewhat red, at the tip brownish; ocelli yellow; the four facial keels distinct; thorax light brown behind with foveated impressions, amidst which arise a few longish prominences, transverse grooves feeble, dorsal keel very distinct. Elytra longer than the body, slightly opaque, light brown, with a few indistinct spots; wings scarcely as long as the elytra, with a greenish hue, except at the tip which is brownish; abdomen brown, shining, palest beneath, segments keeled above, posterior tibiæ of a bright red, sides at the base yellowish, spines black, posterior femora with two brown bands on the upper edge about the middle.

Inh. King George's Sound.

HYMENOPTERA.

Oncorhinus, *Shuck.*

[*Family Thynnidæ Shuckard.*]

My reasons for establishing the family Thynnidæ I shall expose in my monograph of that family, which would have been published ere this, but for the difficulty of procuring specimens for dissection; and as I must for a similar reason

defer the positive character until I publish the synopsis of the whole, I will give those negative ones which are comprised in the differences which distinguish it from *Scotæna* of Klug, and from which it may be separated by its much swollen and protuberant clypeus, being considerably less emarginate. Genæ scarcely conspicuous. Antennæ longer and more porrect; second submarginal cell as long as the third; abdomen broader at the base, its ventral surface concave; hypopygium scarcely carinated laterally, and pygidium prominent and deeply emarginate, its lateral edges produced into acute teeth. External differences apparently so small, and which might elsewhere be deemed inadequate to the establishment of genera, become important in this remarkable family, from their being confirmed by the structure of the trophi, and the strong distinctions exhibited in their females in every instance that has yet presented itself to me, wherever I have had the certainty of specific identity in these heterogynous insects, from the direct observation of my friends in Australia.

Oncorhinus xanthospilos, Shuck.

Black—clypeus, mandibles, lower portion of face in front of eyes, a narrow streak above and behind them—anterior margin of collar, tegulæ, tubercles and adjacent part of epimeræ—a round spot on each side of each segment of the abdomen, except the terminal one—apex of the femora, the tibiæ and tarsi, all yellow; the posterior tibiæ being only brown within, and the extreme apex of the joints of their tarsi also brown.

Habitat King George's Sound—length 11 lines, expansion of the wing 18 lines.

This is an unique species in the genus as far as I have yet had the opportunity of ascertaining.

W. E. S.

NEUROPTERA.

Bittacus australis, Klug. Monogr. Panorp. Berlin Trans. sp. no. 11.

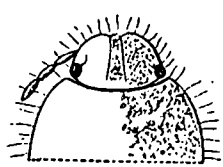
Hab. King George's Sound.

HEMIPTERA.

CHŒROCYDNUS, n. g.

Head broad, in front somewhat truncated; ocelli wanting; antennæ five-jointed, second joint longest, third, fourth and fifth, somewhat thickened and nearly equal; beak reaching to base of last pair of legs, if not beyond; third joint the longest; thorax in front notched for reception of head, not so wide as the body; scutellum long and pointed, the line separating it from hemelytra very indistinct; hemelytra without a membrane at the end; tibiæ very spiny; abdomen broadest behind; tarsi of fore-legs very feeble, two-jointed, second joint shorter than the first, and ending in two claws.

(6)



Chœrocydnus foveolatus, n. s. (6)

Dark pitchy brown; head, thorax, and body margined with hairs; head above minutely punctured, an elongated space in the middle, smooth; thorax above minutely punctured with some larger impressed dots, and irregularly shaped smooth spaces, the coriaceous part pitted; antennæ and tarsi light ferruginous.

Inh. King George's Sound.

LEPIDOPTERA.

Papilio Liris, Godart. Encycl. Meth. ix. Papilio, p. 72, no. 132. Boisduval Spec. gener. des Lepidopt. i. p. 269, no. 92. De Haan. Bijdr. &c. Verh. Nat. geschied. &c. Zool. Insecta. tab. 4. f. 3, p. 40.

It may perhaps be not altogether foreign to the purpose of this list to say, that in the collection of the British Museum there are two specimens of this species from the North-west coast of New Holland, where they were collected by the late Mr. Allan Cunningham. The whole of his collection was bought by Mr. Children, and many of the rare Lepidoptera in it were named by Mr. G. R. Gray. Godart's description of the body agrees exactly with the male in the national collection, "les cotés et le bout de l'abdomen d'un rouge-carmin tendre." Boisduval, in the standard work above alluded to, says of this species, "dessous et extrémité de l'abdomen d'un rouge carmin. *Femelle semblable au mâle*," "sur quatre individus que nous possédons, *aucun ne varie*." In one of the Museum specimens (a female) the abdomen is nearly entirely black, and the brown in both specimens is of the same rich deep shade that is found in the Papilio Polydorus. The abdomen may possibly be that of some other species, as the specimen is not in very good condition. I regard the specimens from the N. W. coast of New Holland as a slight local variety. Godart's specimens came from the East Indies and Boisduval's from Timor. I find that M. W. de Haan, in the splendid work published at Leyden on the Natural History of the Dutch colonies in the East and West Indies, &c. has described and figured "the female" of this species with the following note; his specimens were from Timor-Koepang. On the lower side of both wings there is a carmine anal spot placed at the end of the yellow band and gradually running into it, this

spot is larger and more deeply coloured in the male than in the female; in the former it shews itself on the upper side, along the inner edge, as a small streak which is not visible in the latter (l. c. p. 40). I may add that his figure of the abdomen is red, and the specimens are larger than those in the Museum (Bijdragen tot de Kennis der Papilionidea, in the Verhandel. over de Natuurl. Geschied, &c. Zoöl. No 3, tab. 4, f. 3. 1840.)

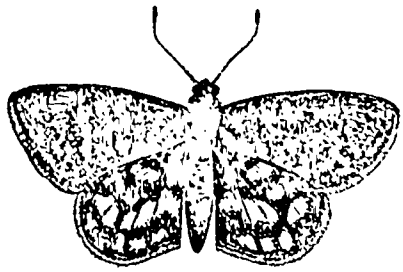
Pieris Aganippe (Donovan) Boisduval var. Lepidopt. i. p. 457.
Papilio Aganippe Donovan, Ins. of New Holland.
Hab. King George's Sound.

Hipparchia Merope (Fabr.)
Hab. King George's Sound.

Hesperia (?) *Sophia.* (7)
Above, brownish black; upper wings varied with bluish grey scales, many near the outer margin arranged into a somewhat regular series; a transverse, slightly bent, white band runs from near the outer edge close to the tip, to near the middle of the wing; wings fringed with greyish and black; under wings brownish black, with fulvescent orange spots and a band, one small spot somewhat transverse, near the middle, beneath this a broadish band extends from the anal margin nearly to the outer side of wing, which is divided by a brown line, leaving an irregular squareish spot, attenuated towards the outer margin; on the margin are three differently shaped spots beginning from the internal margin, and in one of the specimens are four slight lunules, growing fainter as they approach the outer margin. Beneath, upper wings with two transverse fulvescent orange bands, one near the centre, the other at the tip, broadest externally, with three black spots, the outer largest running into it near the margin, interiorly it is much contracted ending in spots; the base of the wings is yellowish grey, under wings yellowish grey at base, otherwise very similarly marked, the outer part of the orange

band having two longitudinal whitish lines on it; antennæ at base fringed with white; club brown. Body above silky yellowish brown; borders of segments lighter; beneath, greyish white.

(7)



Inh. King George's Sound, *Capt George Grey.*

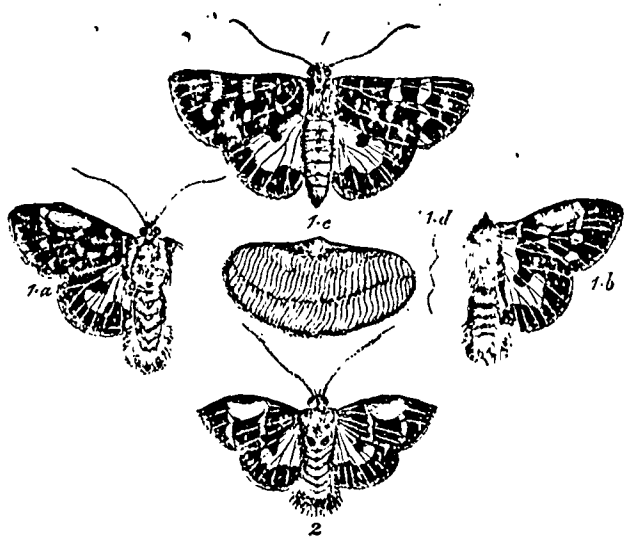
This seems to belong to a new genus not far removed from Castnia or Coronis.

Hecatesia thyridion, Feisthamel.

Lepidopt. Voy. Favorite, Suppl. pl. 5, f. 1. ♂

♀ alis longioribus, maculis albis triseriatis alarum anticarum majoribus, *nullâ maculâ diaphanâ fenestratâ ad costam.*

(8)



(8) 1. Hecatesia thyridion ♀.—1 *a.* do. ♂ upper side.—1 *b.* under.—1 *c.* fenestra in wing of male—1 *d.* section of fenestre—2. Hecatesia fenestrata ♂.

The genus *Hecatesia* was founded by Boisduval in 1829,* upon a singular Zygenidous insect sent to Latreille by Mr. Alexander Macleay, from New Holland, in some part of which it does not seem to be uncommon.

The species H. fenestrata Boisduval (l. c. p. 11, pl. 1, f. 2), was brought by Mr. Hunter, Surgeon of Captain King's expedition, and by him presented to the British Museum. Another species has been described by the Baron Feisthamel in the voyage of the Favorite (p. 19, pl. 5, f. 1,) under the name of *H. thyridion*.† Of this species there are specimens in the collection presented to the British Museum, and I take the present opportunity of describing the female of this species, only remarking that it wants the fenestrated clear space in the upper wing.‡

The H. thyridion is distinguished from the H. fenestrata by its larger size, and a third yellowish white interrupted band close to the base of the first pair of wings; the fenestrated spot is narrower, more lunated, and is much smaller in proportion than in the corresponding part in Dr. Boisduval's species. The body beneath is girded with four yellowish white and black bands, the black bands are continuous on the sides, while the white pass on the sides into the deep ochry-yellow of the upper side; the abdomen has a single row of black spots (at least seven) down the middle, one at the base of each segment, the two nearest the thorax have a whitish spot behind them.

The female of this species brought by Captain Grey has the upper wings more developed; the three interrupted

* Essai sur une Monographie des Zygénides, p. 11.

† Lépidoptères nouveau, &c. Supplement a la Zoologie du voyage autour du monde de la Favorite, sous le commandement de M. Laplace, capitaine de Frégate.

‡ At first, from the body being so much more slender than in the fenestrated specimens, I thought it might be the male, but on shewing the specimen to Mr. Edward Doubleday, he pronounced it a female.

whitish bands are composed, at least the two outer, of three spots, larger than in the female; the little bluish white spots on the deep brown part of the under side of the lower wing are also nearly obsolete; the sides of the body are not fringed as in the male; and the apical tuft is very small indeed.

The most marked character, however, is the want of the fenestrated diaphanous spot in the upper wing, which being a most prominent characteristic in the examples of this species already recorded, makes it highly probable that they have all been females, and that this is the first time that the male has been alluded to.

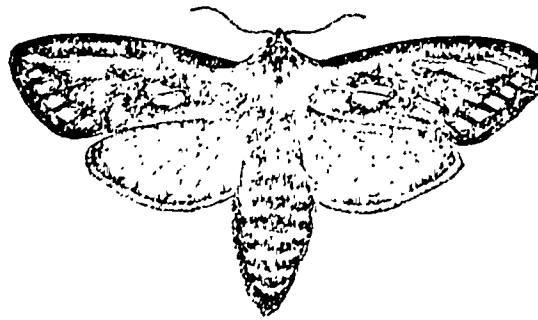
The beautifully striated and waved surface of the glassy spot, taken in connection with the fact, of the noise made by the insects possessing it, would seem to indicate that the fenestrated spot must act as a tympanum.

Cossodes Lyonetii, n. sp. (9)

Wings black, with violet, purple, and green reflections; upper with a longitudinal line, broken by the black of the wing near the base, the other part extending to the tip of the wing, sinuated anteriorly, and elbowed posteriorly; near the posterior margin are two irregular white spots, the upper sub-triangular, the under squareish; on the apical margin are seven whiteish spots, the first very minute, the second largest, the others gradually diminishing towards the long white line where they terminate—the fringe is black, slightly greyish on the edge; the underside of the wing is greyish at the base, and on the inner edge, then violet, the apical portion being of a silky yellowish brown; the lower wings are purplish violet, the outer margin at the base is whitish, the fringe is black at the base, at the end white—the white forming a broader line than the black; beneath it is violet black, and black with a greenish tinge. The thorax and body in the specimen described is rubbed; the latter seems to be blackish green, banded with white.

I have seen a species closely resembling the above in Dr. Boisduval's immense collection.

(9)



Hab. King George's Sound. *Capt. George Grey.**

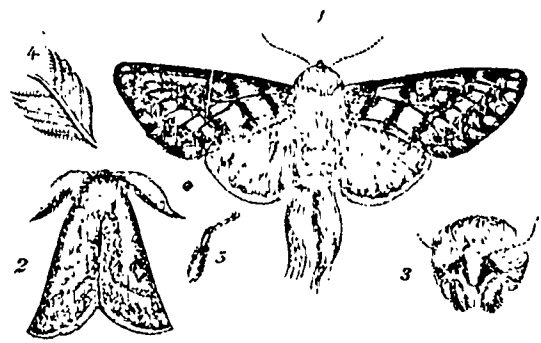
Odonestis Elizabetha, n. sp.

Antennæ, with the pectinations rusty brown, lighter at the tips, the stem densely covered with white scales, palpi and head in front deep ferruginous. Thorax thickly clothed with fawn-coloured hairs; body above, shining ochrey inclined to orange; short tuft at the end of the body; under side lateritious; upper surface of first pair of wings fawn, with a reddish hue, densely covered with hair-like scales, with shorter and somewhat square scales beneath, the scales over the nervures, being reddish; an indistinct line of seven obscure spots still more indistinctly connected by a zigzag reddish line, runs across the wing nearly parallel to its apical margin, and nearer the tip of the wing than the middle. (In one of the two specimens this band of spots is obsolete, or nearly so, as are the reddish coloured nervures). Second pair of wings of a blush red, the fringe fawn coloured; under side of both wings, more of a brick colour than the upper surface of second pair; the

* The *Saturnia Laplacei*, described and figured by the Baron Feisthamel in his description of the Lepidoptera, collected on the voyage of the Favorite, is synonymous with the *Chelepteryx Collesi*, described by Mr. G. R. Gray in the First Volume of the Transactions of the Entomological Society of London (p. 122).

fringes fawn coloured; the second pair with a very indistinct band, nearly parallel to the posterior margin; the nerves on the first pair of wings are lighter than the general ground, on the second pair darker; space between the first pair of legs densely clothed with long ferruginous hair; two hind pair of legs with two strong spurs, one rather shorter than the other; the tibiæ have each a tuft of yellowish white hairs, the legs themselves are covered with short ferruginous scales or hair, those on the soles of the tarsus being somewhat ochrey in colour.

Trichetra Isabella. — Alis anticis albis, fasciis tribus apiceque nigris, maculis subocellatis duobus inter fasciam secundam tertiamque, maculis octo apicalibus; posticis nigris, basi anguste, apiceque marginali ochraceis. (10 f. 1 & 3)



(10)

Antennæ destroyed. Triangular tuft between the eyes, reddish ochre, the sides brown; hairs on thorax white, with a yellowish tinge. The upper wings have their general surface white, the margin at the base being ochrey-orange; there are two black parallel bands suffused towards the outer margin, and in this way connected; a third somewhat diagonal band is in this manner also connected with the second; near the margin there is also a connection between the second and third bands by means of a brownish band interspersed with white scales, and in this are two subocellated spots, white, with an ochrey-orange roundish pupil; the second just in

front of the third band white in front, and ochrey-orange behind; behind the third black band there comes a narrow band of white scales, with an ochrey-orange spot at the end near the outer margin. The tip of the wing is (broadly) velvety brown, with eight marginal whitish spots; the fringe is mixed with black and ochrey; the ochrey tinging the posterior margin of some of the outer spots.

The under wings are velvety brown; the base being obscurely ochrey; the yellowish colour running up into brown; the fringe behind is ochrey.

The under wings are ochrey at the base; the outer margin of the first pair being dark brown; the brown of the second pair is scolloped on the margin as is that of the first. The body above, on the sides and on the margin beneath, is covered with velvety black hair; beneath there is a somewhat indistinct longitudinal brownish band down the middle.

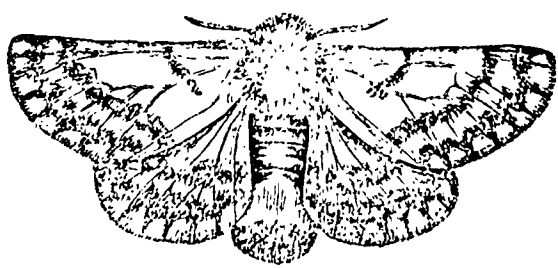
The hairs on the end of the body are longish, and not in a dense close effused tuft as in the female; the legs are hairy, the brushes being black and yellowish white.

♀ Alis anticis albis fasciis tribus brunneo-nigris apice brunneo-nigris.

Maculis 8 (saltem) marginalibus antice albis, postice ochraceis.

Alis posticis, basi ochraceis, fascia, apiceque late brunneo-nigris, margine postico subaurantiaco. (11)

(11)



Since the figure of this was drawn from one of the two rather injured specimens presented by Captain Grey, I have seen another specimen in finer condition, from which I shall

take the more particular description of the bands on the upper wing.

The head and thorax are covered with long and close hairs; the tuft between the eyes being of a brownish ochrey colour; the sides blackish. The hairs on the fore-part of the thorax are ochrey-brownish, gradually passing into white on its general surface, which, however, has more or less of a yellowish tinge.

The upper wings are white, and covered with longish loose scales. Near the base is a narrowish transverse dark brown band, with another considerably before the middle of the wing running parallel to it; behind the middle there is a third band, the inner extremity being at the same distance from the second band as the second is from the first; but it gradually slopes away towards the outer margin, and is thus nearly parallel to the posterior margin, which has also a brown band, scolloped behind, and with at least eight spots on the margin, which is of a brownish yellow, as in the outer margin.

The under wings, from the base to the middle, and (narrowly) on the outer margin and behind, are brownish ochrey; the other half of the wing is blackish brown, scolloped behind; and having an indistinct ochrey band passing transverse through it, which ochrey band has some darker coloured scales mixed with it.

The under sides of both wings differ but little from the upper sides; the upper pair more especially, however, have on the basal and submarginal parts longish ochrey coloured hairs instead of white scales.

The body above is, at the base, ochrey; the sides, and two or three other segments brownish black, darkest just in front of the large thick-set tuft of brownish orange hairs at the extremity; beneath, down the middle, is a band of brownish orange; the segments to the sides of this being black at the base and orange at the tip; the legs are varied with black and ochrey white.

This seems congeneric with the Arcturus Sparshalli of Mr. Curtis, described in the 7th vol. of the British Entomology, folio 336, as a British insect; but there seems doubt of the correctness of this. The name, having been pre-occupied in Natural History, has been changed by Mr. Westwood to Trichetra, in p. 92, of the Generic Synopsis, appended to his Introduction to the modern Classification of Insects.

The Bombyx Tristis is figured (fig. 2) on the same block with the T. Nephthis.

Agagles amicus, n. s.

A new species, at first sight resembling Leptosoma annulatum, Boisduval, (Voy. de l'Astrolabe, i. p. 197, pl. 5, fig. 9,) but differs; the thorax having four longitudinal, narrow, light coloured lines, the band across the upper wings is more continuous, and the circular spot on lower, larger. It is about the same size, and has the body ringed with black and yellow; the legs are brown; the femora on under side fringed with whitish hairs, simply pectinated; many of the pectinations of the antennæ end in a bristle-like hair; palpi somewhat prominent; last joint pointed.

The illustrative figures were drawn by Mr. B. Waterhouse Hawkins, and engraved on wood by Mr. Robert Hart, of Gloucester-street, Queen's-square.

THE END.

C. NORMAN, PRINTER, MAIDEN LANE, COVENT GARDEN.

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Digitized with financial assistance from the
Government of Maharashtra
on 17 February, 2016